

SAILPLANE & GLIDING

VOL. 63 NO.3

**YOUR EASA MEDICAL
QUESTIONS ANSWERED**

**OLYMPICS: WHAT TO DO
IF YOU'RE INTERCEPTED
BY A TYPHOON**

**TIPS TO TALK YOURSELF
INTO SOARING SUCCESS**

HIGHS AND LOWS

Close encounters of the Chilean Andes kind

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Your online BGA Shop

The BGA Shop has long proven to be a great shopping resource for everyone in gliding - and now it offers even more!

The BGA Shop is still the best source for club essentials such as DI books, log books, textbooks, Laws & Rules, Operations Manuals, BGA badges, and one of the best for specialist media supplies such as books, videos and CDs - you name it! But sailplane pilots also need a plethora of gadgets, gifts and gizmos, clothing and cover-ups, tools and trivia, models and manuals...and now the BGA Shop stocks more of these than ever!



Crystal block

One of our new arrivals, now back by popular demand, is a must-have "gizmit" for the glider pilot who has everything - a miniature sailplane

encased in lead crystal. Inside each ornamental block is an ultra high-definition laser etching, perfectly rendered in incredible detail, of a Duo X, Discus 2CT, Nimbus 4, or Ventus 2CX 18m - with more designs to come.

Have we got yours yet?



Beautifully presented in a silk-lined gift box, the crystal block is only available from the BGA Shop.

The BGA Shop - our goal

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

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

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Stay safer with in-flight plumbing...

With the soaring season now upon us, **don't run the risk of dehydration and disorientation!**

New in-flight plumbing kits from the BGA Shop can help men avoid this very real risk - so why not try our special offer starter pack? It includes 2 sheaths and 2 disposable collection bags. The sheaths are condom-like devices with a strong seal, designed to keep you dry and comfortable during long flights. Download the size guide template (above) to make sure you get a perfect fit!

Once attached with a non-return valve and flexible tube to a drainage bag stored in the footwell, these kits mean you need **never worry again about drinking plenty of fluids both before and during your cross-country flights.**





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MEMBER OF THE ROYAL AERO CLUB AND THE
FEDERATION AERONAUTIQUE INTERNATIONALE



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COVER STORY

The Chilean 'thermal factory' of Manquehue had worked well over two weeks, but one day Olly Peters was met only with weak climb for a memorable flight with the ground never too far below. Turn to p38 for the full story. (Olly Peters)

DEADLINES

Aug/Sept 2012

Articles, Letters, Club News: 8 June
Display advertisements: 22 June
Classifieds: 5 July

Oct/Nov 2012

Articles, Letters, Club News: 6 August
Display advertisements: 22 August
Classifieds: 6 Sept

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> A query by a BGA club has prompted advice from the CAA that there may often be a difference between co-ordinates specified in a NOTAM and the actual co-ordinates. This is because, in accordance with EUROCONTROL guidelines, NOTAMs outside of a CTA/CTR are specified to an accuracy of one minute, rounded to the nearest whole number. NOTAMs may also quote an AIC, so that more accurate positions can be plotted. A recent example led to a difference of 1/2 mile between a NOTAM RA(T) boundary and the definitive boundary described in the AIC, which was a significant issue to a gliding club located close to the RA(T). The AIC was referred to in the NOTAM. Pilots are advised to read NOTAMs very carefully to ensure that additional referred detail is taken into consideration. See also: www.gliding.co.uk/bgainfo/airspace/documents/rats.pdf

> Under EASA pilot licensing rules, solo flight is now permitted at 14. Solo flight without a licence under EASA rules means solo flight supervised by an instructor. The CAA will be changing the Air Navigation Order (ANO) later this year, including a change to the ANO item regarding the minimum age to fly solo in a glider in the UK. The BGA will consider the new ANO text and advise accordingly. Other gliding countries who solo at 14 report no significant issues. Consultation with gliding insurers indicates that they are satisfied that a change will not increase their exposure.

> The BGA Review of Accidents in 2011 has been published. There were no fatal accidents in 2011 and no serious injury accidents from winch launches or instructing flights. Of the 22 fatal or serious injury gliding accidents from 2008-2011, 10 were associated with field landing. Field landing accidents with personal injury are of increasing concern. You can collect a copy of the review from your club or download from <http://www.gliding.co.uk/bgainfo/documents/accidentreview2011web.pdf>

> Congratulations to Ed Downham, whose 12 May flight in EB28 '13', with Alex Hippel as P2, looks likely to have beaten his existing Open Class triangle distance and free triangle distance UK records by 4km (806km) and 7km (808km). Ed's existing UK record flight was flown in an ASW27 in 2004.

> Airspace files have been updated (.tsp format), including Olympic airspace and are available at <http://soaringweb.org/Airspace/UK>



Paul Tolson poses with his bike in front of Edensoaring's K-21 as he prepares for his worldwide Bike and Glide challenge (Pete Whitehead)

MAN WITH A MISSION

CHOICES – life and a good flight are full of them, as most cross-country glider pilots know. I was one once, **writes Paul Tolson**. A number of factors, including advancing middle age spread, meant that I haven't been active in the sport for the last 10 years. A subscription to S&G is my only link.

Approaching the big 5-0, a decision needed to be made. Lose the 'spread', re-enter the sport, buy a nice Club Class glider and try to win the nationals, or... do this other thing – the one lurking around in my subconscious since teenage years.

With my chances of winning the nationals being very slim, the choice was made; I would attempt a journey around the world. Like any good cross-country

task, it had to be challenging. Out went the motorbike, in came the bicycle. Then an idea: why not combine my two greatest passions in life – travel and gliding – and try to visit everywhere gliding regularly takes place on the planet, by bicycle? Now that would be a worthy challenge for the latter half of my life – maybe even impossible?

Professionally, for the past 10 years I have worked with people with a wide range of disabilities, so the next choice was easier. I will be raising funds for the aid organisation Handicap International (www.handicap-international.org.uk) and different charities that enable those with disabilities to glide. I will be supporting Aerobility (www.aerobility.com) for the first stage of my journey, through Africa.

I also aim to use the journey to raise the profile of gliding. I plan to work with the gliding centres/clubs I shall be visiting and use the unusual nature of the journey to gain them and the sport some media interest. I have a *Learning* section on my website, which will include resources about gliding, and am linking in with schools in the UK and abroad. I will also be giving talks and presentations along the way, incorporating a section on gliding.

It feels good to be setting forth on a 'cross-country' task once again, although a little different in nature.

You are invited to 'come along for the ride', see www.rideandglide.co.uk

■ S&G will be publishing regular reports from Paul as he embarks on his challenge.

EuroFOX update

FOLLOWING discussion with the BGA and LAA, the CAA has confirmed that the EuroFOX – an Annex 2, lightweight, relatively low operating cost tug aircraft recently reviewed in S&G – can be used as an amateur built glider tug aircraft within a gliding club environment. The tug must be owned and operated on a non-commercial basis by the gliding club; charges for aerotows should only represent recovery of direct costs (maintenance, fuel and oil, etc). EuroFOX tug aircraft must be certified and maintained under the LAA airworthiness system, which in turn operates under a CAA approval.

Youth taking to the skies

“A PRETTY extraordinary day, and one of the busiest you will ever see at Bicester,” says Bicester CFI Dave Watt. The Air League’s Youth in Aviation Flying Day, held at Bicester on 12 May, saw around 230 launches, a full grid launch, 20 motorglider flights, plus almost continuous passenger flights by all sorts of visiting aircraft.

“A day like that is really on the margin of what can be done with a mixture of winch, aerotow, aerobatics, cross-country, and power flying (by pilots not that familiar with a gliding operation). The fact that it went off so well is down to a lot of very hard work, as well as the supervisory skills of a lot of people,” says Dave.

There is not the space here to thank all of those involved – particularly the Bicester team – who gave up the first good cross-country day in ages to encourage the youngsters, but look out for a report and photographs in the next issue of *S&G*.

CLOUD FLYING LAW

“LAWS are like sausages: better not to see them being made.” This comment, attributed to German chancellor Otto von Bismarck, seems fitting for EASA and the cloud flying issue, *writes the BGA's Andy Miller*, who is a Europe Airports industry expert on FCL.008.

Working Group FCL.008 has, for some time now, been involved with the early drafting of licence regulations, triggered by the 2008 Basic Law, through Notices of Proposed Amendments to responses and considerations.

Throughout, cloud flying – more properly titled ‘gliding under IFR’, which is a much wider issue – has been a difficult thread, with the BGA (me) at the heart of things (the heart being EASA).

Within the process, we have striven to import BGA experience of safe cloud and IFR flying with an appropriately light regulatory touch. Fitting that into a European context has been, shall we say, interesting.

So now (as of April 2012), the Part-FCL (licence) regulations are European law and set the scene. EASA’s proposals for a glider cloud flying rating (together with other GA

instrument flying issues), NPA 2011-16, were published last autumn, triggering 1,500 responses – many from UK gliding. Quite appropriate, then, that the BGA and UK CAA were both involved in reviewing these responses. That’s now done. EASA’s second stab, a Comment Response Document, could be out in the middle of the year.

There are even more steps before the final law, but this is what seems likely:

- No licence restrictions on gliding up to cloudbase, where airspace regulations permit.
- A practical rating for those wishing to fly within cloud.
- No news on grandfathering yet, but I expect provisions to be sensible.



■ The British Junior team had a week’s coaching at Nympsfield in April. Here they and their coaches are watching Andy Davis (left) brief Steve Nock (in the cockpit). Left to right: Andy, Jon Meyer, Matt Cook, G Dale, Will Ellis, Ayala Liran, Luke Dale and Matt Davis (kneeling).

DATES

NATIONALS, REGIONALS AND OTHERS

Overseas Championships	Ocana, Spain	19-26/5/12
15m Class Nationals	Lasham	2-10/6/12
Lasham Regionals	Lasham	2-10/6/12
Open Class Nationals	Lasham	2-10/6/12
Eastern Regionals	Tibbenham	2-10/6/12
VGC National Rally	Sutton Bank	2-10/6/12
18m Class Nationals	Hus Bos	16-24/6/12
Competition Enterprise (not rated)	Long Mynd	30/6-7/7/12
Wenlock Games	Long Mynd	14-21/7/12
Club Class Nationals	Gransden Lodge	21-29/7/12
Bicester Regionals	Bicester	21-29/7/12
Worlds (flapped)	Uvalde, USA	4-19/8/12
Standard Class Nationals	Nympsfield	4-12/8/12
Midland Regionals	Hus Bos	4-12/8/12
Dunstable Regionals	Dunstable	18-26/8/12
Juniors Championships	Lasham	18-26/8/12
Two-seater comp	Pocklington	19-26/8/12
UK Mountain Soaring comp	Aboyne	2-8/9/12
Worlds (unflapped)	Argentina	6-19/1/13

Glider aerobatic competitions

Nationals	Saltby	24-27/5/12
Saltby Open	Saltby	7-9/9/12

LASHAM REGIONALS

Lasham	2-10/6/12
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EASTERN REGIONALS

Tibbenham	2-10/6/12
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NORTHERN REGIONALS

Sutton Bank	16-24/6/12
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SHENINGTON REGIONALS

Shenington	23/6-1/7/12
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BICESTER REGIONALS

Bicester	21-29/7/12
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MIDLAND REGIONALS

Hus Bos	4-12/8/12
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DUNSTABLE REGIONALS

Dunstable	18-26/8/12
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BIDFORD REGIONALS

Bidford	18-26/8/12
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INTER-SERVICES REGIONALS

Wittering	18-26/8/12
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■ **BGA Club Management Conference, 17 November, 2012. Venue to be confirmed**

RAeCT bursaries

THE Royal Aero Club Trust has announced the award of £3,600 in gliding bursaries as part of its Flying for Youth programme.

Awards were made to Peter Carter (17, Norfolk GC), Andrew Collings (19, Rattlesden GC), Oliver Giles (20, Four Counties GC), Charlotte Gordon (16, Highland GC), Joshua Hope (16, Cambridge GC), Jordan Richards (18, Seahawk GC), Matthew Ruskin (18, Cambridge GC) and Richard Williamson (20, Dartmoor GC).

Charlie Jessop (20, Windrushers) and Andrew Monk (20, RAFGSA at RAF Halton) were both awarded a President’s Scholar bursary of £500 and Michael Gatfield (19, Booker) received the Bramson Bursary, also worth £500.

Details of bursaries for 2013 will be available at www.royalaeroclubtrust.org/bursaries.html from September 2012.

The wrong Whistler

BEN WATSON has written to me from the USA pointing out that it was Laurence Whistler who was responsible for the wonderful clear glass etched windows in Moreton Church Dorset, not his artist brother Rex, who was killed during the Second World War. (See *A Last Hurrah*, p22, April/May 12.)

That left me pondering on the extraordinary way that talent can be transmitted genetically, and the eternal question of nature versus nurture.

Even in gliding, with its comparatively short history (in evolutionary terms) we see the involvement of successive generations.

We are indeed a microcosm of the whole, which perhaps explains why we feel so strongly that gliding should be preserved and fostered.

Justin Wills, New Zealand

What's in a word?

HOW nice 'How the Gatwick slither was won' (p4, April/May 2012 issue) that we shall now be able to slither along the newly-created sliver of airspace!

Graham Wadforth, Wolds Gliding Club

The editor replies: *Well spotted! Slither and sliver have separate meanings - a sliding motion and a long, narrow shape. In recent years, use of 'slither' for either meaning has become widely accepted. It doesn't make it right though, so apologies and thanks for the mental image of slithering along the airspace!*

BGA Regional Safety Officers Needed!

The BGA is seeking volunteers to act as Regional Safety Officers (RSO's) to cover gliding clubs predominately in the Midlands & Northern part of the UK. Ideally you will be an experienced glider pilot with good communication skills who is capable of liaising with club Safety Officers, Chairmen & CFI's. Training for the posts will be provided if required & the BGA will reimburse expenses incurred in the course of the RSO's duties.

To apply for the positions, please email a resume of your experience to John Hull at jh-touchdown19@hotmail.co.uk

MISTING PROBLEM CLEARED

THERE have been a number of safety warnings and problems regarding the misting of canopies both in your recent issues - see Andy Durston's night flying (p14, April/May 2012) - and cautionary warnings from the BGA.

In fact, this is a very simple problem to solve. Using a clean, damp micro-fibre cloth, place one very small drop of liquid detergent on it and spread it around a little. Wipe the canopy with the cloth and you will apparently have no condensation, or at least any you can see.

The problem with most specialist Perspex and plastic cleaners generally is that they are designed to increase the surface tension of any water droplets that form on them. Using a domestic liquid

detergent decreases the surface tension and water droplets will not form, so there is no visual impairment. Avoid ones with added softeners and use only clear ones.

If you want to check the veracity of the treatment prior to using it on your precious canopy, try it on the bathroom mirror (then breath on it), your specs, the caravan windows or even the next bottle of beer you take out of the fridge!

Nick Gaunt, North Yorkshire

Please send letters (marked 'for publication') to the editor at editor@sailplaneandgliding.co.uk or the address on p3, including your full contact details. The deadline for the next issue is 8 June

The Colditz Cock

AVIATION history was made in late March when a team from Sussex-based glider repairers South East Aircraft Services built a full-size glider in the attic of Colditz Castle and launched it from the roof of the former POW camp - powered purely by gravity and a concrete bathtub.

Although a previous Colditz Glider replica was constructed and flown in the UK for Channel 4 in 2000, the intended launch system and the practicalities of a successful escape had never been proved (WW2 having ended before the prisoners could use the original glider to escape).

In 2011, Channel 4 commissioned this new replica to be built exactly to the original plans, using domestic timbers, bed sheets, and door hinges. A kit was prepared, but Channel 4 wanted to ensure that construction was to happen in the original workshop space of Colditz Castle itself.

Although filming of the documentary happened over a 15-day period, really only eight days were able to be used for building the glider. This was hampered further in that the documentary makers insisted on the use of millet porridge as the doping

material for the cotton bed sheets, which led both to some surprising results and also some significant challenges.

Despite both the LBA and the Saxony Authorities giving their full co-operation for this project, permission for this once-only flight of an untested machine was only given on the basis that the glider was strictly radio-controlled and had a MAUW of 150Kg, which in itself brought many structural issues. The launching system was continually revised right up until the evening before launch.

The full results of the efforts of a great many people will be made public when the programme is shown during the summer. A behind-the-scenes report will appear in the August/September of S&G.

Tony Hoskins, South East Aircraft Services



This replica was built in the original workshop space of Colditz Castle (Tony Hoskins)

Presenter and engineer Jem Stansfield achieves flight in his home-made human-powered aircraft for BBC TV's *Bang Goes the Theory* (Arthur Willmer)



Bang goes the theory at Lasham

LASHAM airfield was the setting for one of the experiments featured on BBC TV's *Bang Goes the Theory* on 30 April.

The programme's resident engineer, inventor and presenter, Jem Stansfield, had set himself the challenge of getting airborne with pedal power alone.

The challenge was inspired by recent footage of 'Airglow' marking the 50th anniversary of human-powered flight, when SUMPAC (Southampton University Man Powered Aircraft) was pedalled into the air by Derek Piggott at Lasham in 1961.

Working at impressive speed, in consultation with the Royal Aeronautical Society (RAeS) Human Powered Aircraft (HPA) group, Jem designed a competent aircraft. The aircraft was built by Jem and two other Bang engineers over approximately five and a half weeks and transported to Lasham airfield for covering, final assembly and testing. The propeller was moulded by Bill Brooks (HPA Group chairman) at P&M Aviation, using the Airglow propeller mould and a foam epoxy technique.

Jem describes his aircraft as "essentially a bike with wings about the size of those on a Boeing 737". The aircraft has a 23m

wing span, but, being built of mostly foam and a type of cellophane, the whole plane weighs only two-thirds of Jem's weight.

The 'flight' took place at Lasham Airport early one March morning when the weather conditions were perfect.

Lasham's *Rising Air* editor, Geoff Martin, continues the tale: "This was the machine's first outing as it had only just been covered and assembled in Gordon MacDonald's hangar.

"Outside, it took a while to get the BBC team to realise that these fluffy beasts will always instantly weathercock into a crosswind.

"However, once the breakages had been re-Araldited by Afandi Darlington – waving a yellow hairdryer – and once Bob Bickers had got everyone dead into the northerly wind (by simply yelling), 'Son of Airglow' managed to rise off the ground two, and then three, feet for a brief hop or two, before amazing everyone with how much bending moment the down-going and ground-looping wing could actually stand!"

■ The RAeS HPA group hopes a team will continue development of this interesting aircraft with a view to it competing in the Icarus human powered aircraft cup, due to be held at Lasham, 14-22 July, 2012



Jem Stansfield's aircraft was transported to Lasham for covering, final assembly and testing. The hangar wasn't big enough to put the wings fully together, so that had to be done outside (Geoff Martin)



What will happen if you infringe the Olympic airspace restricted zone?

FROM 14 July until 15 August this year, there will be an unprecedented amount of military restricted airspace around London. Infringements will cause a national security incident. This is not civil airspace and the reaction to an infringement does not follow normal civilian practices. The military response is likely to be as follows:

- You will be spotted by the military sentry planes and advanced early warnings systems in place for the Olympics.
- It is very likely you will be intercepted by a Typhoon or helicopter.
- It is likely that lethal force will be used if you do not follow interception procedures, that is rock your wings and follow the intercepting aircraft by turning away from London and landing as soon as it is safe to do so.
- You will be prosecuted and made to pay any costs on top of any fine or jail sentence. For instance, the cost of interception and closures of any London airports.
- You will have any licence or flying privileges revoked for a very long time, with instant effect.
- The gliding club you took off from will be audited by the military to ensure supervision is totally robust.
- If a student infringes (pre-cross-country endorsement qualified) then a lot of the above applies to the Instructor who authorised the flight.

Why is this airspace different from normal class A airspace?

Its purpose is entirely for security reasons; to protect Olympic venues, people and UK infrastructure from



If you are intercepted by a helicopter, it will carry a green laser to get your attention (see below) and a follow me sign. Failure to follow interception procedures could result in the use of lethal force (photos courtesy of the CAA)

airborne attack. The scope of threat varies from small model aircraft to airliners. The restricted zone around London is designed to act as a buffer to ensure any threat is removed before it gets to the prohibited zone. As I write this, the news is full of MoD plans for the siting of anti-aircraft missiles around the prohibited zone. This is a less flexible response than being intercepted! All of this is controlled by the military (known as Atlas control).

Unlike normal airspace infringements, the early warning airborne radar will be tracking you and on a high state of alert before you actually infringe. I am told if you get within 3nm (5km) you will already be monitored very closely. Ideally try and make sure you do not go within 5km of the restricted airspace. If you think you are unsure of your exact position and you might be close to the RA(T) [Restricted area (temporary)], or even in it, do the following:

- If you have a radio, call on 121.5

immediately. Do not worry if you do not have an RT licence. Plain English will do. Tell them your registration and that you are uncertain of your position. They will tell you where you are and give you headings to your destination, or somewhere to land if you have infringed.

- If you do not have a radio then turn away from where you think London is.

What should you do if you are intercepted by a helicopter or Typhoon?

If you are intercepted by a helicopter, it will carry a green laser to get your attention and a follow me sign. If you do not want to be shot down by the on-board sniper then you should:

- Rock your wings to acknowledge the interception and, if radio equipped, change to 121.5.
- Follow the intercepting aircraft away from London and land at the nearest safe place to do so.

If you are intercepted by a Typhoon it is very likely you will hear it and pyrotechnics will be fired to get your attention! The procedure is then the same as for helicopter interception.

The BGA has a good reputation with our regulators for responsible use of airspace. It is vital for our future airspace negotiations and access that we do nothing to damage that credibility by causing an Olympic incident.

With all the pre-flight planning information and the extra Olympic map supplied with this year's half million map, there is no excuse for not knowing where the airspace is. There are a lot of places to get information. The BGA will be providing more advice on how to avoid the restricted airspace as we get nearer the date.

Gordon MacDonald
BGA Airspace Committee

■ For more information see:
http://olympics.airspacesafety.com/media/7037/asi_intercept_leaflet_v5_lr.pdf
<http://olympics.airspacesafety.com/>



Photos courtesy of the CAA

SAILPLANE & GLIDING



Andy Davis
Competition flying



Andy Miller
SLMG



Howard Torode
Airworthiness



John Marriott
Tugging



Mike Fox
Instructing



Dr Peter Saundby
Medical



Andy Holmes
Winch operating



John Williams
Airspace



Alison Randle
Development



Bruce Stephenson
Vintage gliding

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

EXPERT ADVISERS



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NEW GP MEDICAL REQUIREMENTS

CAA chief medical officer Dr Sally Evans talks to S&G about how glider pilots will be affected by new EASA mandated GP medical requirements

EUROPEAN legislation was brought into force in April 2012 that will introduce new medical requirements for all pilots in Member States of the European Union. These rules will become applicable in the UK from 1 July 2012 though pilots of certain types of aircraft, including gliders, will have almost three years, until April 2015, to change over to the new requirements. In the meantime, the BGA medical requirements will continue to be in place.

LAPL medical requirements

The European legislation introduces a new licence, the Light Aircraft Pilot's Licence, and associated medical certificate. The medical

requirements are set out in:

- The 'Basic' EASA Regulation (Regulation (EC) No. 216/2008). This contains the over arching rules, including the provision to permit GPs to act as an Aeromedical Examiner (AME) in specified circumstances.
- The EASA Aircrew Regulation (Regulation (EU) No. 1178/2011). Annex IV is known as Part MED and contains the Implementing Rules for medical certification.

Acceptable Means of Compliance and Guidance Material (AMC/GM) that explain how to comply with the Implementing Rules to Part MED has been published by EASA.

Process for applying for a LAPL medical certificate

The LAPL medical assessment can be undertaken by either your National Health Service or military general practitioner (GP) or an Aeromedical Examiner (AMEs). A list of AMEs is available on the CAA's website (www.caa.co.uk/medical) then click on 'Find an AME'.

The LAPL medical certification system requires a GP to refer an applicant with any significant medical history to an AME or Aeromedical Centre (AeMC). Hence it is important that if you have any significant medical history you should apply to an AME for your first LAPL assessment. If you have a current, or have previously held, a medical declaration with any limitation on it you should attend an AME for your first assessment as your GP is able only to put a limitation for corrective lenses on your medical certificate. This should avoid the need for a duplicated assessment and associated charges. All subsequent assessments may be undertaken by your GP if there is no change in your medical condition. Your GP will be able to revalidate any limitations already on your LAPL certificate.

Information that your GP will need

Any UK GP who undertakes an assessment for a LAPL medical certificate for the first

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time will need to notify the CAA of their activity. You should ensure your GP is aware of this requirement. Guidance for GPs on the LAPL assessment procedure will be published on the CAA's website in July 2012. You should download the guidance and take it with you to the appointment with your GP.

Requirement for examination

The first time you apply for a LAPL medical certificate your GP will need to review your medical notes and undertake a simple medical examination, including your pulse, blood pressure, vision, hearing and a urine test. A similar examination will be required at each revalidation after the age of 50 or if your assessment is undertaken by an AME (unless the AME has your medical history available to them). Other assessments will not include an examination unless one is required because you have symptoms or you have developed a medical condition. There is no requirement for an ECG for a LAPL certificate, though you may be asked to undertake one if you have a history of heart symptoms or disease or if your GP or AME consider you to be at particular risk for developing heart problems.

Decrease in medical fitness

If you experience a decrease in medical fitness in between assessments you should stop flying and seek the advice of the AME or GP who issued your medical certificate. Guidance will be available for GPs on the CAA website.

If you develop a new medical condition, or experience a change in an existing medical condition, your GP may need to refer you to an AME or AeMC. This may not necessarily mean that you will have to attend for reassessment as the AME may be able to make a fitness decision based on the information submitted to them by your GP.

Frequently asked questions

Q When can I apply for my first LAPL medical certificate?

A You will need a LAPL medical certificate in order to obtain a LAPL, which will be required to fly a glider from 8 April 2015. You can apply for a LAPL medical certificate at any time between 1 July 2012 and 7 April 2015.

Q How often do I need a medical assessment?

A A LAPL medical certificate is valid for five years until the age of 40 and two years thereafter. If you have a certificate issued

aged 37 to 39, it will be valid until your 42nd birthday.

Q I hold a medical declaration, but am concerned that my medical condition may preclude LAPL medical certification. What should I do?

A You should apply for a LAPL medical certificate to an AME three months before you require it. This should allow time for your AME to consult with an Aeromedical Centre or the CAA about your fitness assessment if that is necessary. There is a flexibility clause in the European medical requirements and the CAA will be able to advise your AME how this may be used and limitations applied to your medical certificate in specific circumstances, eg for pilots who have insulin-treated diabetes, or deafness.

It will not be possible to consider individual queries about fitness for medical certification under Part MED until the UK has implemented the EASA Aircrew Regulation and you have made an application for an EASA medical certificate.

Q Will I be able to have an assessment with a GP or AME outside the UK?

A You cannot attend for assessment by a GP in another State. If you undergo a medical assessment with an AME certificated by another State, the report of the medical assessment must be sent to the UK CAA if you hold a UK issued licence. It is advisable to attend for a LAPL assessment in the UK if you intend to apply for a LAPL to the UK CAA to avoid translation costs. Medical reports submitted to the UK CAA will only be accepted in English.

Q What if I only want to fly a non-EASA glider?

A Once the EASA Aircrew Regulation has been implemented in the UK, the Air Navigation Order will apply only to pilots operating aircraft for which EASA does not have legal competence (known as Annex II gliders). The existing BGA system remains in place for UK Annex II gliders when flying in the UK.

Q Can I use my medical declaration to obtain a LAPL?

A A medical declaration cannot be used in place of a LAPL medical certificate to support a LAPL.

GLIDER PILOTS WILL HAVE ALMOST THREE YEARS, UNTIL APRIL 2015, TO CHANGE OVER TO THE NEW REQUIREMENTS

■ Those pilots who choose to operate under a JAA Class 1 or 2 medical certificate should, on renewal with an AME, experience a seamless transfer to a very similar EASA Class 1 or 2 medical certificate.

■ Further information on medical and licensing aspects of the transition to EASA requirements can be found at:

● www.caa.co.uk/docs/33/20120326EASAMedicalCertification.pdf

● www.caa.co.uk/medical (click on 'what's new')

● www.caa.co.uk/eupilotlicensing



Dr Sally Evans, the chief medical officer for the UK CAA, played a very helpful role during the development of the 'acceptable means of compliance' to minimise the potentially negative impact of the EASA GP medical requirements. Sally held a PPL and flew between 1993 and 2001



■ Pipistrel, winner of the NASA Green Flight Challenge for the third time in a row, drew the crowds with its two stands.

The second generation of the electric-powered two-seater self-launching glider Taurus Electro, pictured here, is now in serial production and available to customers worldwide. It has side-by-side seating and an all glass cockpit.

Pipistrel also exhibited its innovative, hybrid propulsion, four-seat high-performance long-range cruiser, the Panthera. We are told that the prototype was completed just hours before the show.

www.pipistrel.si



■ This striking 1960s Russian Antonov A15 glider was on display at the Vintage Glider Club stand. Owner Peter Ocker said that it is one of just two (possibly three) still flying. He has flown it at rallies in the UK. The Antonov A15 is a mid-wing, V-tailed single-seat Open Class glider, made from aluminium.

www.vintagegliderclub.org

S&G reports on the gliding interests at Europe's biggest aviation fair, held in Friedrichshafen in April

AERO 2012



■ Visitors to AERO 2012 were met with the sight of the Windreich Arcus E in the foyer, demonstrating self-sufficient flight. Willi Balz, managing director of German wind turbine company Windreich AG, is a passionate flyer. As a young glider pilot he worked for Schempp-Hirth. The trailer on display was developed by Windreich engineers. It not only transports the two-seater motor glider, but also serves as a charging station. With the help of a wind turbine and solar panels, buffer batteries are charged, from which the Windreich Arcus E in turn receives its energy.

www.windreich.de
www.schempp-hirth.com

■ UK company Trig Avionics launched new 8.33kHz VHF radios, the TY91 and TY92, which complement its TT21 and TT22 transponders.

Available from July, the radios are dual frequency and you can even plug your ipod in (not that we can imagine many glider pilots wishing to do so!). Both models can be fitted with either a 57mm panel mount or smaller compact mount.

The Trig TY91 (£1,275) and TY92 (£3,150) have a control head that's separate to the radio hardware, providing more installation options. With a TY91 or TY92 installed in a panel, the control head is only 35mm deep.

www.trig-avionics.com



■ Skylaunch exhibited a re-engineered Tost, with disabled access lift. Managing Director Adam Greaves, pictured, explained that the winch was ordered by French club Planeurs d'Ille-et-Vilaine to enable its wheelchair-bound club president to access the cab. Adam told S&G that, as it was higher than a standard chair lift, everything had to be custom built.



It is operated by two powerful electronic actuators and is damped to give a smooth carriage from ground level up to the cab's rear doors. The cab seat is designed to fold away to allow the wheelchair to fit into the cab, and the platform can be raised and lowered from either the cab or the ground level.

The cost of adding a disabled access lift to a winch is around £15,000 (in addition to re-engineering costs). The re-engineering of this winch was a major redesign to overcome known issues with Tost winches.

Other news from Skylaunch includes a twin delivery of an Evolution and Retrieve winch to Le Mans GC, purchased to help the club quickly and safely retrieve cables and to prevent the cables from drifting towards the race track. Also the delivery of an electric winch (highlighted in last year's AERO report) to French club Chanet VoV.

www.skylaunchuk.com

■ Butterfly Avionics launched a range of gliding products, including the Butterfly Vario. This 'next generation' vario combines Vario/Speedcommand, basic Backup-Navigation with final-glide calculation, a digital compass, Butterfly FLARM®-Radar with FLARM®-voice output, a robust artificial horizon with true airspeed and true altitude, a fully certified IGC-flight-recorder with many other features that simplify flying.

A combination of 14 sensors measure relative air-mass movement around the glider in real time. The pilot sees real time air-mass and wind data updated repeatedly every second, independent of flight direction.

A new design concept integrates a 2.7" display into a 57mm standard instrument cut



out. The display features a contrast ratio similar to printed paper and is said to be readable in any lighting condition, superceding mechanical pointers.

For all of this, you can expect to pay 2,999 euros.

Butterfly's managing director Marc Forderer told S&G that around 2,000 of its PowerFLARM units have now been sold.

The company also displayed its iGlide soaring navigation iPhone App (29.99 euros). We're told this will soon be available for the iPad,

with an Android version planned for next year. A moving map (available in 3.7" and bigger screen) is due to be launched at the end of the year.

www.butterfly-avionics.com

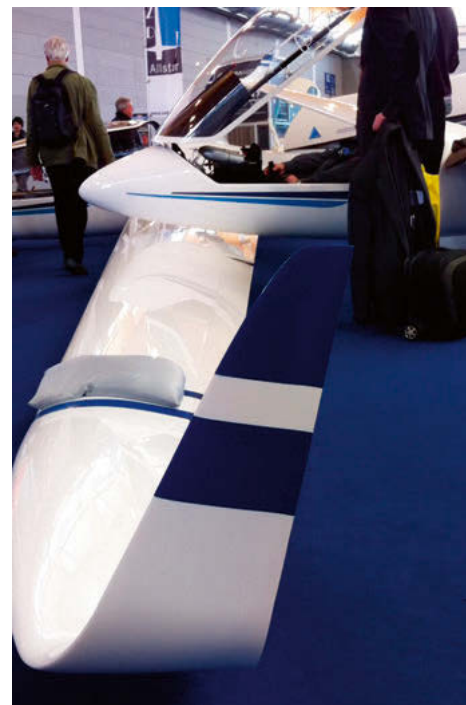


■ The Elektra One from PC-Aero was winner of the Lindbergh Prize for Electric Aircraft Vision in 2011. A new solar-powered version was exhibited this year that gives twice the range of the electric version. The Elektra One Solar plane features solar cells on the wing surfaces that harness energy from the sun to provide zero-emissions flying with lower operating costs and less noise.

Built of carbon composite materials, the Elektra One Solar is a single-seater with a longer wing span than the initial Elektra One electric plane, giving it a better glide ratio. In addition to being able to travel just over 600 miles, the solar plane can fly for more than eight hours, weighs only 400 pounds and can carry a payload of 220 pounds, including the pilot.

A model of the Elektra Two Solar, a two-seater version, was also on display.

www.pc-aero.de/



■ Allstar was displaying its Perkoz, complete with new 20m extended wingtip for cross-countries. EASA certification is imminent for this new trainer, which can fulfil all the required BGA training exercises, with first deliveries from June/July 2012.

See what Borders GC pilots thought of the Perkoz in the Feb/March issue of S&G. <http://szd.com.pl>



■ Airbox Aero has revamped its Aware software, which now includes all BGA turnpoints. The airspace warning device was developed in association with the National Air Traffic Services (NATS).

Each Aware features a full moving map display showing CAA ICAO 1:500,000 charts for the UK. It can have its airspace database updated for free every 28 days on the AIRAC (Aeronautical Information Regulation And Control) cycle. Prices start at £159.

The company won a Flieger Magazin best newcomer award at Friedrichshafen and also received nominations for two other categories for its Foresight SuperBright and Clarity 2.0 systems.

www.airspaceaware.com

> PHOTOS BY SUSAN NEWBY



JET SUSTAINER A REVELATION?

In early 2009, detailed design studies started on the JS1 jet sustainer system, including engineering and aerodynamic requirements

With certification imminent, Andy Davis reports on the development of Jonker Sailplanes' JS1 Revelation jet sustainer, the JS1-TJ

THE 18-metre class JS1 Revelation is the brainchild of brothers Uys and Attie Jonker, who, as small boys, watched their father build his own glider and dreamed of the day when they, too, would build their own modern, sleek sailplane.

Through a personal evolutionary process of building model gliders, learning to fly and rebuilding wrecked gliders, to starting their own glider repair and refinish business, the brothers' every step was taken with the goal of achieving their dream.

The JS1 started out as a project to build their own 18-metre class sailplane, but soon took on a momentum all of its own and their small glider repair and refinishing business developed into a booming glider manufacturer – Jonker Sailplanes (JS) – with a healthy order book, building JS1 Revelations at a rate of 20 a year.

The amount of work involved in developing a new glider from concept through to production was indeed quite a revelation to Uys and Attie. Hence the JS1 was christened, with tongues in cheek, the JS1 Revelation.

From an early stage in the JS1

project, JS had considered the potential for installation of a small turbo jet engine on a retractable pylon, mounted in an engine bay behind the wing. In the brothers' opinion, it offered many advantages over a conventional piston engine sustainer.

The concept jet engine system was to be mounted in a modular box, easy for the owner to remove with quick-release connections for fuel and electrics. However, no detailed sustainer work was done in the early days as the priority was always to get the pure sailplane development completed, series production started and several examples flying safely. Once this was achieved, in early 2009, detailed design studies commenced on the jet sustainer system, including engineering and aerodynamic requirements.

Aerodynamic studies carried out by JS concluded that the small turbo jet engines derived from model aircraft engines did not have sufficient thrust to provide adequate rates of climb with the heavier 18-metre class gliders. JS chose a more powerful 40kg thrust engine, being developed from a model engine in Europe, and detailed engineering studies started with this engine as the chosen powerplant for the JS1 jet sustainer.

Modifications to the basic JS1 airframe included carbon reinforcing beams to carry structural loads around the engine bay



Prototype JS1-TJ with M&D TJ-42 engine

cut out and to meet EASA CS22 strength requirements. In early 2010, JS, confident that the project was well advanced, changed the JS1 standard specification to include engine bay cut out, structural reinforcements, bay cover and cable trunking for the control/display wiring.

Then came the bombshell. The engine manufacturer told JS that it had no intention of certifying the jet engine with EASA. This left the jet sustainer project dead in the water, as it would not be certified by the South African CAA without a fully-certified engine. The search for a new engine manufacturing partner began and, in February 2010, JS entered into discussions with M&D Flugzeugbau GmbH, Germany.

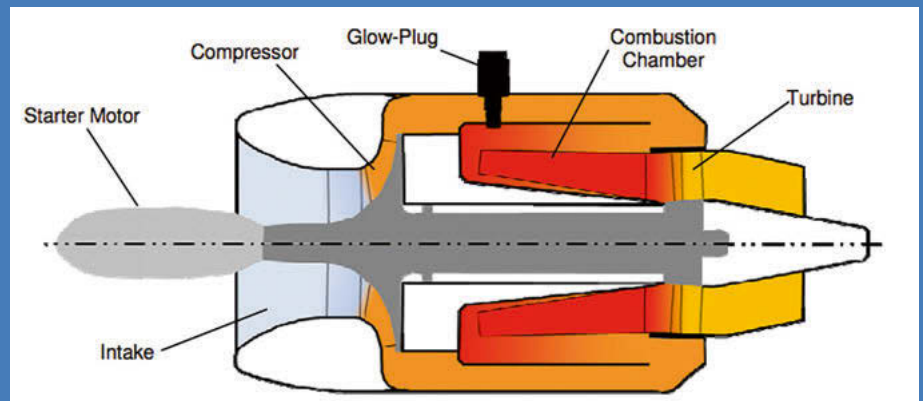
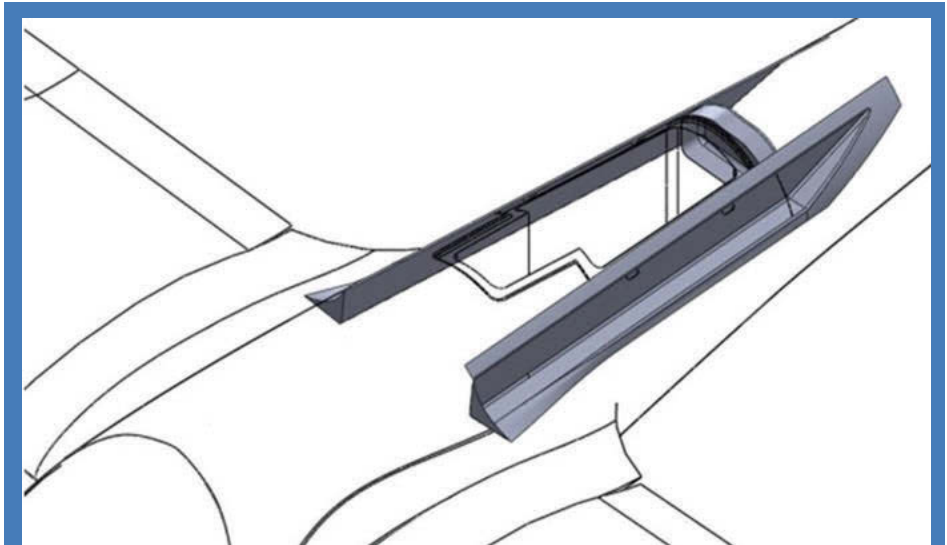
M&D, manufacturer of the Samburo motorglider, is run by gliding enthusiasts and holds EASA design, manufacturing and maintenance approvals. M&D had started to design and develop its own small jet engine, the TJ-42; not simply a derivative of a model aircraft engine, but designed from the very beginning as a small aircraft engine meeting EASA requirements.

The M&D TJ-42, after a few initial teething problems, is now in the final stages of development with a design freeze on all major components and is in an advanced stage of the EASA Certification process. Engine certification by EASA to CS22 Subpart H is expected shortly.

For the technically-minded, the TJ-42 is a single spool gas turbine with two stage axial-centrifugal stator-less compressor operating at a compression ratio of 1:3.8. The cannular combustion chamber has multiple fuel injectors and combustion zones, with glow plug ignition for start and a single stage axial turbine with stators. There is a front-mounted direct drive starter motor for initial spool up. The engine will be certified to run on ordinary diesel fuel mixed with two-stroke oil and will start up using diesel fuel, as opposed to the gas start used by the model aircraft derivative engines. The engine produces 40kg of static thrust at 98,000rpm.

In the JS1-TJ the engine and all mechanical parts are mounted in a carbon fibre box, bolted to the engine bay cut out with quick-release connectors for electrics and fuel to allow easy removal and access for maintenance and servicing. The engine is mounted on a faired retractable pylon, driven by an electric actuator, and the bay doors are sequenced so that all doors close to minimise drag after the engine is extended.

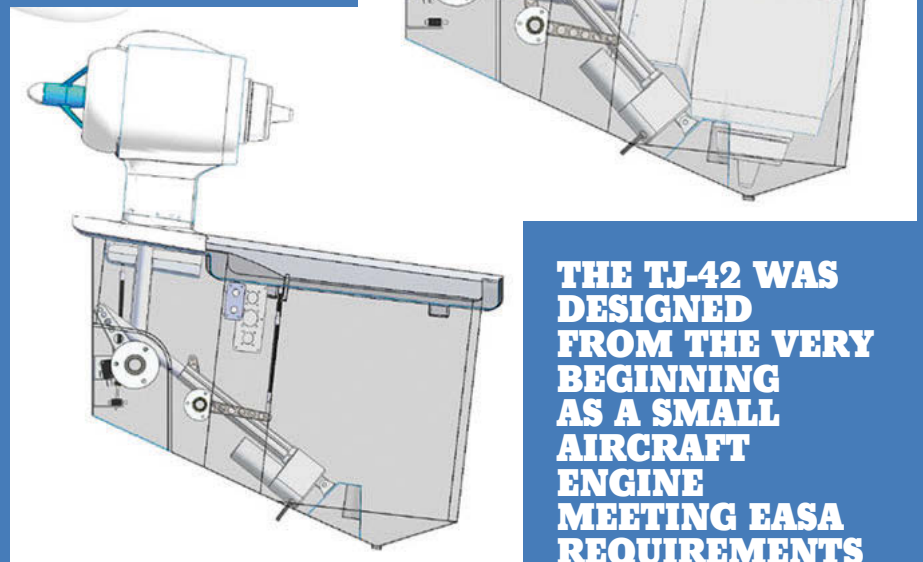
The fuel system comprises three



(Top) JS1-TJ fuselage structural modifications

(Above) M&D TJ-42 engine

(Right and below) jet retracted and extended



THE TJ-42 WAS DESIGNED FROM THE VERY BEGINNING AS A SMALL AIRCRAFT ENGINE MEETING EASA REQUIREMENTS

I FOUND THE ENGINE NOISE TO BE QUITE TOLERABLE AND I WAS ABLE TO CLEARLY HEAR THE RADIO AND AUDIO VARIOMETER



The Jet Display Unit (JDU) was developed specifically for the JS1-TJ

To view a video clip of the JS1-TJ, see: www.youtube.com/watch?v=3_IQIF_VqTE&feature=youtu.be

electrically bonded interconnected composite tanks mounted around the engine bay, with a total capacity of 41 litres. Fuel pipes are made from aircraft-quality aluminium. Fuel passes through a strainer, filters, flow meter, fuel pump and solenoid valves before being injected into the engine.

The electrical system comprises high-capacity batteries, Engine Control Unit (ECU) and Jet Display Unit (JDU), interconnected by a shielded wiring harness. The ECU receives signals such as RPM, exhaust gas temperature (EGT), limit switches and throttle setting, and sends signals which control the fuel pump rate, fuel solenoids and glow plug ignition. The LXNAV JDU, developed specifically for the JS1-TJ, is mounted in a standard 57mm diameter instrument and displays engine and pylon status, including engine parameters such as RPM, EGT and fuel quantity. The JDU also contains the system master retract, extend and start, as well as a rotary throttle knob.

Through the Settings Menu on the JDU, the engine ECU can be pre-programmed to start and immediately command the engine to pilot-selected start RPM. I cannot imagine why anybody would choose to set anything other than full thrust.

The weight of the TJ-42 engine and sustainer installation, at around 15kg, is considerably less than piston engine sustainer installations. The fuel consumption of the turbo jet engine at glider speeds is, however, considerably greater than that of a piston engine with propeller and, even considering the higher climb speed, considerably more fuel will be required by the jet sustainer for

the same range under power. With the 41-litre tanks of the JS1-TJ full of diesel fuel, the weight of fuel will be 33kg. Whilst recreational pilots will probably operate with full fuel tanks for maximum airborne retrieve range, competition pilots may well elect to operate with partially-full fuel tanks – enough to get them to the nearest airfield or safe out-landing area – in order to have the lowest possible unballasted wing loading.

The JS1-TJ will be certified by the South African CAA to EASA CS22 requirements as a major modification to the existing JS1 Revelation Type Certificate. The JS1-TJ prototype “JET” first flew under power in September 2011 from the JS airfield at Potchefstroom, South Africa. Numerous test flights have since taken place, exploring the boundaries of the engine’s start and environmental envelope. Flight tests have shown that engine start is neither sensitive to airspeed nor altitude, with the start envelope likely to extend to high altitude and with wide airspeed limits. With the exception of when flight tests pushed the boundaries of the start envelope, the engine has demonstrated 100 per cent start reliability.

Design of all components is now frozen and a definitive TJ-42 engine is being used by JS for certification testing. The certification process of the JS1-TJ with the South African CAA is taking place in parallel with the EASA certification of the M&D TJ-42 engine and it is anticipated that the South African CAA will grant the JS1-TJ its Type Certificate very soon after EASA certifies the engine.

During a visit to the JS factory in Potchefstroom on 9 September last year, I had the opportunity to fly the jet prototype. As JS was taking a cautious approach to flight testing, the engine was temporarily limited for the initial series of test flights by ECU programming to 93,000rpm, which delivers approximately

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The JS1 Revelation

AS THE START WAS FULLY AUTOMATED, I COULD CONCENTRATE ON MY WEAK THERMAL AND IMAGINARY FIELD UNTIL THE ENGINE WAS BOTH EXTENDED AND RUNNING

30kg of thrust (75 per cent of design thrust).

The fuel tanks were quickly filled with kerosene by an external electric pump and quick-fill connector through the open engine bay doors with the engine partially extended.

After two practice engine start and shut down cycles on the ground, I took a short aerotow in the bumpy early morning thermals. Having released, and leaving the main wheel down, I initiated the start sequence; JDU master switch to ON and select from "retract" to "run". The ECU controlled the complete extension and start sequence and key parameters (RPM and EGT) were displayed on the JDU. It was not necessary to fly at any defined airspeed during start. I could not detect any increase in drag as the engine extended, nor was it detectable on the instruments. In just 45 seconds from start initiation, the engine was running at full (available) thrust and the variometer indicated a climb rate of nearly 1m/s at 110km/h (2kts at 60kts) with main wheel down at the restricted 75 per cent thrust setting.

Unlike conventional piston engine sustainers, there was no vibration and it was not necessary to carefully control the indicated airspeed to achieve a satisfactory climb rate as the thrust performance curve gives almost the same climb rate across a wide range of airspeeds. Surprisingly, I found the engine noise to be quite tolerable and I was able to clearly hear the radio and audio variometer.

Engine shutdown was achieved by selecting from "run" to "retract" and the ECU did the rest. The shutdown takes around two minutes, as the engine goes through an automatic cool-down cycle using the electric starter motor before retracting into the engine bay, but, as in engine start, there is no noticeable drag and no increase in pilot workload. The ECU controls everything, there is no requirement to maintain a particular airspeed during shutdown and the JDU confirms that the engine is fully shutdown and retracted into the engine bay.

Next, I circled in weak lift maintaining height with the wheel down to simulate

scratching above a landing field and again initiated the start sequence. As the start was fully automated, I could concentrate on my weak thermal and imaginary field until the engine was both extended and running. With full available thrust, the climb rate increased to 2m/s (4kts) and, as I continued to circle in my thermal, I shut down the engine by again selecting from "run" to "retract".

With two successful in-flight starts from two attempts, I then retracted the wheel and spent a few minutes enjoying myself in the blue thermals before returning to land and handing the prototype back to the JS development team.

Post-flight analysis showed that height loss during start was approximately 100ft and, during shutdown, approximately 200ft. Climb rates observed with this derated engine confirmed that the JS performance model is accurate. Although JS has not yet published any performance predictions, full thrust climb performance with the definitive 40kg thrust engine is likely to be in the region of 3.5kts at 90kts IAS with a similar climb rate at all airspeeds. Range on full tanks is likely to be in the region of 250km with a saw tooth profile of 90kt climb and best L/D glide.

Congratulations to M&D and the JS team on reaching such an advanced stage of development with this new technology. With the obvious safety benefit of low workload automated operation, wide in-flight start envelope, low drag, reliable start and 40kg of thrust delivering high climb rates even at high altitudes and high airspeeds, the TJ-42 powered JS1 Jet Sustainer is a very attractive alternative to conventional piston engine sustainers.

■ **Turn to p18 to read Afandi Darlington's comparison of the JS1 turbojet with the standard glider turbo powerplant. See also Afandi's article on the development of the JS1 on p42 of the Feb/March 2009 issue.**

Andy Davis' smile indicates just how much he enjoyed flying the JS1-TJ prototype during a visit to the Jonker Sailplanes factory in South Africa last year



Andy Davis is a 747 captain/airline pilot by day, with over 20,000 hours power flying and 5,500+ gliding hours. He was Standard Class World Champion in 1993 and 2003. Through his friendship with the Jonker brothers, he has been following the JS1 project since it first started over 10 years ago and, after seeing the propotype wing come out of the mould at Potchefstroom, he immediately ordered an early production JS1 in which he soon won the UK 18-metre nationals. Andy and Iain Evans are jointly Jonker Sailplanes Agents for Western Europe

JET OR TURBO?

Afandi Darlington compares the latest generation of turbojets with the standard glider turbo powerplant, the Solo 2350

IT'S a long time since Frank Whittle and Hans von Ohain independently conceived gas turbine engines for aeroplanes back in the 1930s, and it is perhaps surprising that it's taken so long for them to be offered in gliders, as a means of self-sustaining flight. So, how do the latest generation of small turbojets compare with the standard glider turbo powerplant, the Solo 2350?

System weight

A typical 18m glider with the Solo 2350 turbo installation has an empty weight about 45kg greater than the equivalent pure sailplane. Add 10 litres of fuel (7kg) and our weight penalty, for the convenience of missing out on a field landing, is 52kg. The 10 litres of fuel will allow one hour of engine running.

The TJ-42 installation in the JS1 weighs

in at 15kg, including the engine itself, the mounting box, fuel tanks and associated wiring and fuel lines. The TJ-42 engine weighs only 3.2kg, which is impressive considering its full throttle rated thrust of 40kgf – a power to weight ratio of 12.5:1 – one of the benefits of a machine rotating at 98,000rpm or 1,633 revolutions per second. Filling up the 41-litre fuel tanks with diesel, sufficient for one hour's flight, adds 37kg to give a total system weight of 52kg.

So a score draw between the turbo and the jet, but how does the performance compare?

Performance

Once you've eventually got a turbo engine started, it's standard practice to slow down to something like 50-55kts, select the first stage of thermal flap and watch the climb rate

build to between 1.2 and 2kts, depending on the engine and propeller combination. The climb rate will drop off with altitude and on a standard day the ceiling will be about 6,000ft.

The jet sustainer's performance is one area where it really outperforms the conventional turbo – the TJ-42's numbers of 90kt climb speed and 3.5kt climb rate look realistic and, after a 20-minute 'burn', the jet sustainer would be at 7,000ft some 30nm

down track, whilst the turbo pilot would be still climbing through 3,000ft and trailing the jet by 13nm.

Jet 2 - turbo 1

Operational flexibility

Starting a turbo engine involves deploying the engine and pylon at a speed sufficiently low to avoid overloading the actuator spindle motor as it brings the engine out against the airflow; somewhere between 50-60kts is typical. The fuel pump runs and, whilst diving to 80kts, the pilot presses a lever to open the decompressor valves in both cylinders, allowing the propeller to run up to more than 1,000rpm, before the deco valves are closed and the ignition switched on. All being well,

the engine bursts into life and the glider can be slowed down and configured for the climb. There are a couple of problems with this. The first is that the drag of the glider with the engine out, but not running, is significantly higher than normal, so if it doesn't start, the pilot needs to have a field landing planned for this eventuality. The second is the slightly unnerving feeling one has when diving at the ground on the downwind leg to a field, watching the prop rpm like a hawk whilst keeping an eye on where the field is. The pilot workload is high.

By comparison the jet sustainer, with an automated start sequence, offers a major reduction in pilot workload. Due to the small size of the nacelle and engine bay doors that close once the jet engine is deployed, the drag penalty of the deployed engine is very significantly reduced compared with a conventional turbo, resulting in normal glider performance levels in the event that the engine fails to start and a field landing results.

Jet 3 - turbo 1

Operating costs

With avgas close to £2/litre, the direct operating cost of the turbo comes in at about £20/hr of engine running. This compares with about £60/hr for the jet engine burning 40 litres of forecourt diesel an hour, although as already mentioned the performance of the jet is such that it probably needs to run for only half the time of the turbo during a retrieve. Therefore, whilst the operating costs of the jet are marginally higher than a turbo, the difference is minimal.

Score draw; jet 4 - turbo 2

Conclusion

A modern turbojet installation incorporating automatic starting and failure detection, such as that offered by the TJ-42 and the LX JDU, appears to offer a significant improvement over the conventional Solo 2350 piston turbo option for gliders. Assuming that the purchase costs are comparable, and also that the TJ-42 obtains the CS-22 Engine Certification as promised, I think we will see many more jet-powered gliders in UK skies in the future.



The jet sustainer's performance is one area where it really outperforms the conventional turbo



Afandi Darlington is an experienced aeronautical engineer and an Inspector of Air Accidents (Engineering) at the AAIB. He started gliding in 1989, has 1,800 hours and flies an ASG-29E at Lasham

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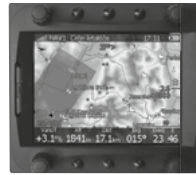


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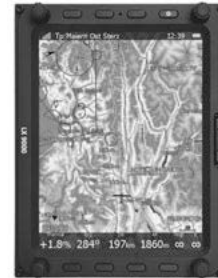
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TRAVELLING WAVES

Morning Glory cloud (figure 5) seen from the surface approaching Sweers Island, north of Burketown, Australia (Russell White)

Alan Lapworth continues his series on waves in the atmosphere with a focus on travelling waves

A LAYER of air is said to be stable if the temperature increases with height or decreases with height at less than 3°C per thousand feet. Parcels of air in stable layers will tend to return to their original height if displaced up or down vertically so that the layer is 'springy' and will support internal wave motions. Such waves are known as gravity waves.

Gravity waves may be triggered by the flow of air over a ridge. Such waves are fixed

relative to the ridge and are standing waves. They are useful to glider pilots because the updraughts are in a defined position and may even be made visible by clouds formed within them. However, in general, gravity waves are travelling waves, radiating horizontally and vertically from their source. If a glider passes through one, the pilot will notice a momentary lift or sink on the variometer, but will not be able to stay within the area of lift because the wave will

have passed on. Very rarely a horizontally travelling wave may be made visible by a moving cloud formation and, in that case, a pilot might be able to travel with the wave

and stay in a region of lift if the updraught is strong enough.

River bores

Gravity waves are not the only type of coherent disturbance that can travel in a stable layer of air. Another type is the bore and this is analogous to bores that occur in some rivers when there is a strong incoming tide (usually a high spring tide) and the estuary funnels the tide, increasing its speed.

One well-known instance is the Severn bore, illustrated in figure 1. This bore can reach heights of over six feet, but the largest bore worldwide is probably that on the Qiantang River in China, where heights of over 30 feet have been observed.

A bore is a type of shock wave. It occurs when the speed of advance of the tidal front U relative to the river flow is greater than the speed of associated surface water waves. When this happens, the tidal water piles up above the surface level of the river outflow (figure 2). As the speed of water waves in shallow water is given by \sqrt{gh} where g is the acceleration due to gravity and h is the flow depth, this will happen when U/\sqrt{gh} , known as a Froude number, is greater than one.

The form of the bore depends on the value of the Froude number. If it has a value less than two, the bore is a smooth series of waves, known as an undular bore. If it is



Figure 1 Severn Bore travelling up river. This bore can reach heights of up to six feet. The largest bore worldwide, in China, has recorded heights of more than 30 feet

four or five then it becomes a turbulent bore, sometimes referred to as an hydraulic jump.

The speed of travel of the bore can simply be determined by conservation of momentum flux through the jump. If the river flow is negligible then the speed of the bore U is given by:

$$U = \sqrt{\frac{gh_1(h_0 + h_1)}{2h_0}}$$

where h_0 is the river depth before the bore has passed and h_1 is the depth afterwards.

However, it can be shown that conservation of momentum flux means that energy is not then conserved across the jump and the excess energy has to be released into the water. In the case of the undular bore this may be by radiation of surface water waves away from the bore itself. In the case of a turbulent bore the excess energy generates the turbulence, which is thus an inescapable component of the bore. Although an undular bore looks like a surface wave, strictly it is different because in a bore fluid (in this case water) is transported with the bore along with energy, whereas, in a wave, only energy is transported. Generally the river flow in advance of the bore arriving is a fairly slack ebb current, but behind the bore there is a very rapid flood current, following the bore inland. A bore is sometimes confused with a soliton, which is a self-reinforcing solitary wave of a specific form and is a true wave.

Atmospheric bores

An exactly analogous phenomenon in the atmosphere occurs when a disturbance is given to a sharp inversion separating a layer of warm air overlying a colder layer. The two layers of air should be neither convective nor stable, but neutrally buoyant. In practice neither layer is likely to be exactly neutral, but a bore type of disturbance can propagate in any case.

To calculate the speed and Froude numbers of such internal bores, a reduced value of the gravitational acceleration, $\frac{g\Delta T}{T}$, where T is the

absolute temperature and ΔT the temperature difference between top and bottom layers, must be used. Such atmospheric bores are relatively rare, but have been observed all over the world in the right conditions. In most cases, the disturbance initiating the bore is either a sea breeze or a thunderstorm outflow advancing under a stable inversion layer. These are both shallow layers of cold air running over a surface, lifting warmer air ahead of them.

A typical example is shown in figure 3 (below). This figure is based on measurements made of a sea breeze by instruments clamped to the tethering cable of a kite balloon. Temperatures are shown by coloured contours and air flow by streamlines. The sea breeze is obvious to the bottom right of the image, while in the top left the updraught ahead of the front has created a fairly small bore seen as a step in the upper inversion layer. This step is an atmospheric bore and may continue to propagate even after the sea breeze has died away.

Atmospheric bores are most impressive when they are made visible by cloud, which will happen when the near surface layers are sufficiently moist.

They propagate forward at speeds which may be in excess of 30kts and the internal turbulence is clearly visible rising quickly on the front of the bore cloud and a downdraught behind. If the bore is undular, there may be secondary and tertiary waves following the primary bore. In appearance the bore cloud seems like a massive rotor and can certainly be as dangerously turbulent internally. However, there is a large area of smooth lift ahead of the bore and, in principle, it may be possible to soar in this provided a glider keeps ahead of the

THERE IS A LARGE AREA OF SMOOTH LIFT AHEAD OF THE BORE AND, IN PRINCIPLE, IT MAY BE POSSIBLE TO SOAR IN THIS



Figure 6 Morning Glory cloud seen from the surface approaching Sweers Island (Russell White)

(Below, left to right) Figures 2-4: Schematic diagram of a bore travelling up river; sea breeze penetrating inland under an upper inversion in Holderness, UK, imaged by instrumental readings from a tethered balloon (colour contours are temperature, lines are flow streamlines); map of north eastern Australia showing gulf region with schematic line of Morning Glory (white dots) and direction of travel (red arrows) at around dawn

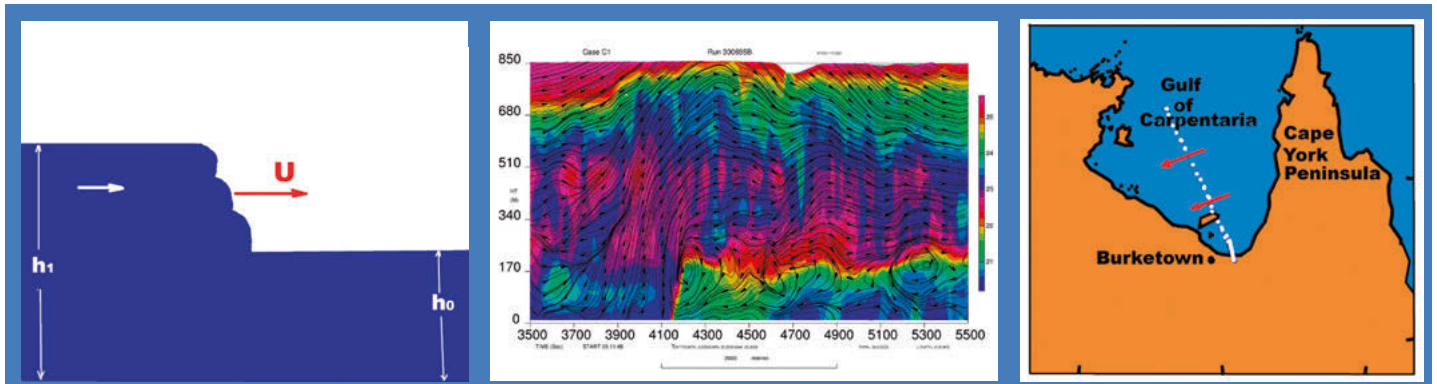




Figure 7: Morning Glory cloud seen from the air over sea approaching Kangeroo Point



Figure 8: Three Morning Glory clouds seen from above over Burketown



Figure 9: Morning Glory cloud seen from the air over Allen Island showing an upper lenticular cloud travelling with it (photos by Russell White)

☞ fast-moving cloud. From the ground, a bore cloud can appear most impressive with a low cloudbase and high frontal wall moving fast towards the observer, with clearly visible rising turbulent updraughts.

Morning Glory

Although there have been worldwide reports of such bore clouds, they are rare in any one location and are generally unpredictable. However, in one part of the world they occur relatively frequently at a particular season. The area concerned is northern Queensland, Australia, and the season is the pre-monsoon months of September and October, before the start of the wet season. This is a very remote area and difficult to reach overland as the roads are unsealed dirt tracks and the country is a wilderness of desert scrub with crocodile infested rivers. There is an isolated settlement of Burketown in the region, having a population of a few hundred people and associations with the author Nevil Shute.

A map of the area is shown in figure 4 (overleaf). To the east is the Cape York Peninsula and this peninsula is important in the creation of atmospheric bores. In the hot weather, strong sea breezes form on both the east and west sides of the peninsula and roll inland. However, the prevailing south-easterly winds drive the east coast sea-breeze faster and, when the sea breezes collide, the resultant disturbance propagates westward as a bore on the marine inversion over the gulf of Carpentaria.

The bore continues westwards overnight and reaches the coast at Kangeroo Point on the coast north of Burketown by dawn. While travelling over the gulf, it is visible as a convective line of cloud as the upper air is unstable to moist ascent. However, as the southern end of the line approaches land, the cloud top becomes smooth as it penetrates the more stable overland air. The cloud line appears on about 40 per cent of days during the season. Its inland penetration to Burketown and beyond depends on whether a strong sea breeze has covered the area on the previous day. This is important because the sea breeze leaves a strong, low-level inversion behind it for propagation of the bore and, more important still, the near surface layer of air is moist. The moisture is necessary to feed the cloud that makes the bore visible.

These conditions are not often satisfied and a bore cloud, known to the locals as the Morning Glory will pass over Burketown itself only once every week or two on average. If it does so, it will then continue inland for

30 miles or more, depending on its strength, before the cloud dissolves, although the disturbance itself propagates much further inland.

Local weather lore in the area suggests that when the fridges frost over and the café tables' corners curl upwards at the Burketown Pub, there is enough moisture in the air for the clouds to form. When it occurs, the cloud seen approaching at dawn is enormously impressive. It can appear as a cloud wall over 6,000ft high and base only 500ft above the surface, stretching from horizon to horizon. It can be over 600 miles long. (See figures 5/6 overleaf.) It moves at speeds up to 37kts and may be followed by several other cloud rolls. Updraughts of up to 20kts have been experienced in front of the cloud.

Figures 7, 8, 9 and 10 show the Morning Glory seen from the air. Figure 9 shows a lenticular cloud over the Morning Glory, which is travelling along with the bore cloud. In fact, the region of lift can extend to heights well above the main cloud, and 12,000ft has been attained. Video clips can be seen on Rob Thompson's websites at www.aerialvideo.com.au or www.morninggloryaustralia.com and images and articles can be seen on Russell White's website www.dropbears.com/brough

This cloud first became known outside the local area during the 1940s when it was reported by RAAF pilots. During the 1970s, meteorologists started to take an interest in it and several field measurement campaigns were mounted in the late 1970s and early 1980s, which included some brave flights through the cloud.

These campaigns identified the cloud as



probably an internal undular bore, although there is some doubt about its nature. Some investigators consider that it may be a solitary wave or soliton, mentioned earlier.

The Morning Glory was first soared in a Grob 109 motorglider by Russell White and Rob Thompson in 1989 and, since then, a number of expeditions have been made to the area by motorgliders and hang gliders.

Hang gliders have to be aerotowed by microlights and need sufficient performance to keep ahead of the fast-moving and dangerously turbulent cloud.

Motorgliders are preferable to gliders, both from the point of view of reaching the area and to avoid landing out after the Morning Glory has collapsed.

The area inland is wilderness crossed by rivers, so that even if a successful landing out has been made, the pilot is left in a very serious situation.

Figure 10 Easterly Morning Glory cloud seen from the air
■ With thanks to Russell White, who took the photographs in figures 5-10



Alan Lapworth has been gliding on and off since 1972, mainly with Oxford GC. He joined the Met Office in 1974 and retired in 2005

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CASTLE CAPER

Kate Byrne's first landout of the year involved an 'interesting' retrieve from a field belonging to Tullibole Castle on 18 March

I'M NOT bad at field landings – I get a lot of practice, you see. It's a pity I'm not so great at getting back, but maybe that will come with yet more practice. Sunday 18 March was my first excursion of this year "amongst the cows", as I'm told the French say. Not that there were any livestock in my field; it was perfectly ideal... for the landing.

That Sunday was one of the first really nice thermal days we've had this year. It turned out to be the standard sort of cross-country day: John Williams does a 300km, various other people do moderate epics, I fail to get back from just down the valley. I hadn't planned to go anywhere, partly because I'd managed to

run my iPAQ completely flat and hadn't got around to setting it up again, so I was using a map. (It is possible to fly cross-country using one of these devices; they have a user-friendly interface and continue to work even if the batteries fail.) In the morning I was busy introducing Martin Rüfenacht to the joys of cable break practice at Portmoak, but after that I decided to go flying with Dougal, the DG-300 I have a share in.

It was past lunchtime when I took off, but I thought I wouldn't be away all that long so, although I prudently shoved a water bottle in the side pocket, I didn't bother taking any food with me – possibly a mistake, I later felt.

After pootling around locally for quite a while I got a nice climb to cloudbase at 4,500ft and decided that the street heading off to the west was just too enticing to ignore. That was at about 2.10pm. There was about 10kts of westerly blowing, so obviously getting back wouldn't be a problem. Obviously.

Somewhere near Balado, I saw a Duo Discus (with Ian and Johnny Paterson aboard, as it happens, though I didn't go close enough to see) and thought "Goody, I can follow them". They didn't seem to

be in any rush, but neither was I, so despite being higher I just hung around, murmuring telepathically "After you, Claude" in their general direction. After a while, the Duo obligingly set off to the west and I fell in behind.

Somewhere around Dollar I lost sight of them, despite much peering ahead along the Ochils, and eventually concluded that they must have changed up a gear and disappeared off to Stirling and beyond, in the way that big-winged gliders do. So I pushed on anyway, as it was still really rather nice up there. Had I turned around and looked over my shoulder, I would have seen them returning to Portmoak, perhaps because they'd noticed that the day was, as it must be admitted RASP had

predicted, showing signs of dying early.

Turning Stirling (STI – the Wallace Monument) and then heading home again seemed a reasonable goal for my little jaunt. It wasn't at all difficult to get to the end of the Ochils, which were popping off thermals steadily, though they weren't such meaty thermals as earlier.

When I got to the end of the street and gazed out across the big blue hole, fringed with showers to the north-west, I decided that I could easily push the 5km or so into the blue needed to reach STI, and still have enough to get home with the tailwind's help. As I did so, I remarked to myself that the wind had picked up a bit and it was taking quite a long time to cover what had seemed so short a run to the turning point.

Now, I like to think I have scarcely a competitive bone in my body, but we can all be a bit tigerish about personal goals and I had decided to turn STI. None of this nonsense about 0.5km cylinders – I wanted a proper turn, looking down the wing at the turning point from within the sector. So I did that, and then pointed Dougal at Portmoak, 37km away, and noticed that the ground seemed to have got a bit closer. But obviously I'd be able to get back – from about 3,000ft QNH now – with that tailwind. Obviously.

The first cloud I tried to top up from didn't have anything to offer, but the next had some ripples and bumps and I did a couple of turns. I was certainly at least maintaining height, but thought "This is a bit pathetic; the next one will probably be better" and carried on. If I'd stayed where I was I'd almost certainly have been blown into gliding range eventually. Is not hindsight a wonderful thing?

About this point, Doubt poked its tousled head above the surface of my mind. I tapped the map and gave it a little shake, but it still didn't vouchsafe whether I was "on glide" or not. From the way the distant airfield was beginning to go up the canopy I rather thought I wasn't. I realised that if I carried on there was a good chance that the flight might end, not merely in the kind of final turn we frown upon (I really didn't fancy a downwind



Tullibole Castle is an early 17th Century 'Laird's House'

**NONE OF THIS
NONSENSE
ABOUT 0.5KM
CYLINDERS –
I WANTED A
PROPER TURN,
LOOKING DOWN
THE WING AT
THE TURNING
POINT FROM
WITHIN THE
SECTOR**

landing), but actually in a splash, into the Loch. The problem seemed to be that, rabbit-in-headlight-like, I was still following the line of clouds but now there was 2 or 3 down under all of them instead of lift. I vaguely remember reading in Reichmann's classic book that decaying clouds will do this.

A couple of years ago, I was lucky to avoid having one of those "Picked a field too late, too low; cocked it up and crashed" incidents, when, 20km short of what would have been my first 300km, I went for "That patch of sun on the ground over there; it's bound to work". (No, of course it didn't.) So that's one particular kind of mistake I don't need to make again, having already done it. Therefore, as I descended steadily under the clouds, I actually did exactly what I advise trainee cross-country pilots to do: I picked a good field and mentally relabelled it as my airfield, then tried to soar within gliding range of it. Pete Williams feels it is a pity that I didn't notice the "Beware, sunken gliders" notices posted in it, but from the landing point of view it really was entirely satisfactory.

After an uneventful landing – punctuated only by my mutterings of "I can't believe I'm landing out; what a plonker!" – I phoned for Pete Long-suffering Williams (it is indeed his middle name) to come and rescue me. He wasn't totally delighted, being in the middle of his long-running project to make the wireless network available in all parts of the airfield where we need it. But at least I wasn't very far away.

That's when the second part of the adventure began. I'd plopped to earth just east of Drum, about 15km from Portmoak. First one person strolled out from a nearby house to check I was OK, and then another – the natives are very pleasant and friendly around Drum. I asked them who owned the field and they said it belonged to Tullibole Castle, which was only a 10-minute walk away, on the north side of the road.

I walked up to make my apologies and met the owner (who turned out later to be Lord Moncreiff) and he was friendly and unconcerned: "We had a balloon not so long ago, but I don't think we've had a glider in since the '60s." Then, as a parting shot: "You might have trouble getting a trailer out if you don't have a 4x4. Have a good look at the two gates before you try it."

If you don't know it, Tullibole Castle is a real gem – an early 17th Century "Laird's House" (see the entry in the National Monuments Record, at <http://canmore.rcahms.gov.uk/en/site/26496/details/tullibole+castle/>).

They run a B&B business and have a self-catering cottage in the grounds, so you can stay there (see <http://www.tulbol.demon.co.uk/>), which sounds rather wonderful to me. It might be just the thing for visiting pilots coming to Portmoak, as it's only a 10-minute drive.

I positioned myself out on the road to wait for the trailer and reflected on how much better it would have been if I'd brought something to eat and a jacket. I was probably looking a bit waif-like when a car passed me, stopped, paused and reversed back. "Is that your glider? Are you OK? Do you need anything?" (The world really is full of lovely people. This was a couple with two kids in the back.) I explained that both the glider and I were completely fine and I was just waiting for the trailer to come. "Oh, so this happens quite often, does it?" they asked. "Well, it does to me," I replied.

We did have a good look at the boggy bits around each of the gate options. This was in March and we don't have any water shortage here in Scotland. Going in was downhill with a light trailer; and Tarka (the car – don't you name your transport partners?) managed it with a quick turn away from the deepest mud just beyond the gate.

After de-rigging we decided the other gate would be better: a more gradual slope and the ground seemed reasonable. But we didn't walk the entire route and sadly drove through – or rather into – a very soft patch on the way. After spending some time detaching the trailer ("mmm, can't push that either") and messing around (very messy actually) with the car's mats under the wheels, until we'd made a bad situation only slightly worse, I plodded back up to the castle and started with "You know how you thought we might have trouble...?".

Lord Moncreiff really couldn't have been nicer. After a quick glance to assess that my opinion was probably not of great worth, he abandoned the decorating work and came down by car to see what was required. With no more criticism than is implied by the words "We'll need a tractor", our host disappeared and returned shortly with suitable horsepower and ropes. After that, things were comparatively straightforward.

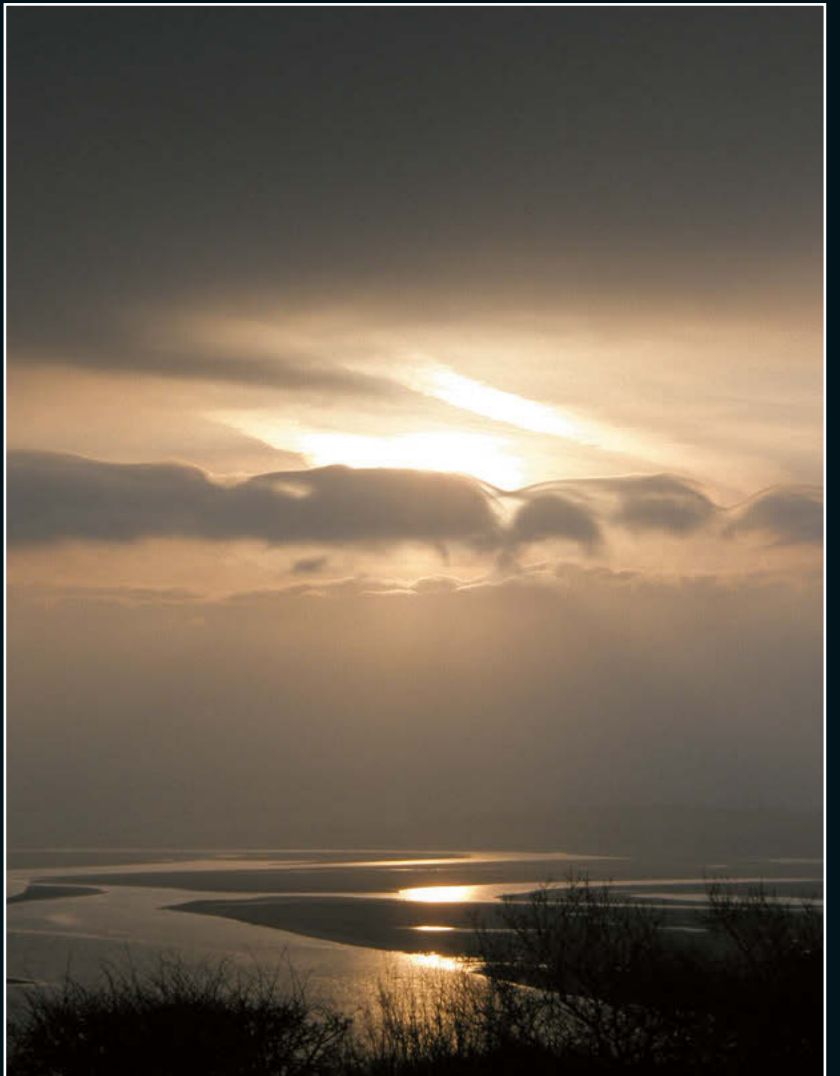
All in all, a spirited beginning to my flying engagements for the year.

I TAPPED THE MAP AND GAVE IT A LITTLE SHAKE, BUT IT STILL DIDN'T VOUCHSAFE WHETHER I WAS 'ON GLIDE' OR NOT



Kate Byrne in the back seat of one of Portmoak's K-21s (Derry Byrne)

Kate Byrne has been gliding on and off since 1979, as a member of the Scottish Gliding Union and Edinburgh University Gliding Club (both based at Portmoak). She has a Full Instructor rating and a Gold Badge, and is currently working towards an NPPL (SLMG). She is a part-time Research Fellow at Edinburgh University and, over the summer months, shares course instructing at Portmoak with Neil McAulay



This page, from top:

This beautiful picture was taken when landing at sunset, at Bitterwasser, Namibia, in an EB28 with P1 Robin May (Roger Colbeck)

Dan Smallbone enjoyed a week's flying from Santa Cilia in the Spanish Pyrenees in April. This stunning shot was taken from a Duo Discus during a wave flight (Dan Smallbone)

Facing page, clockwise from top left:

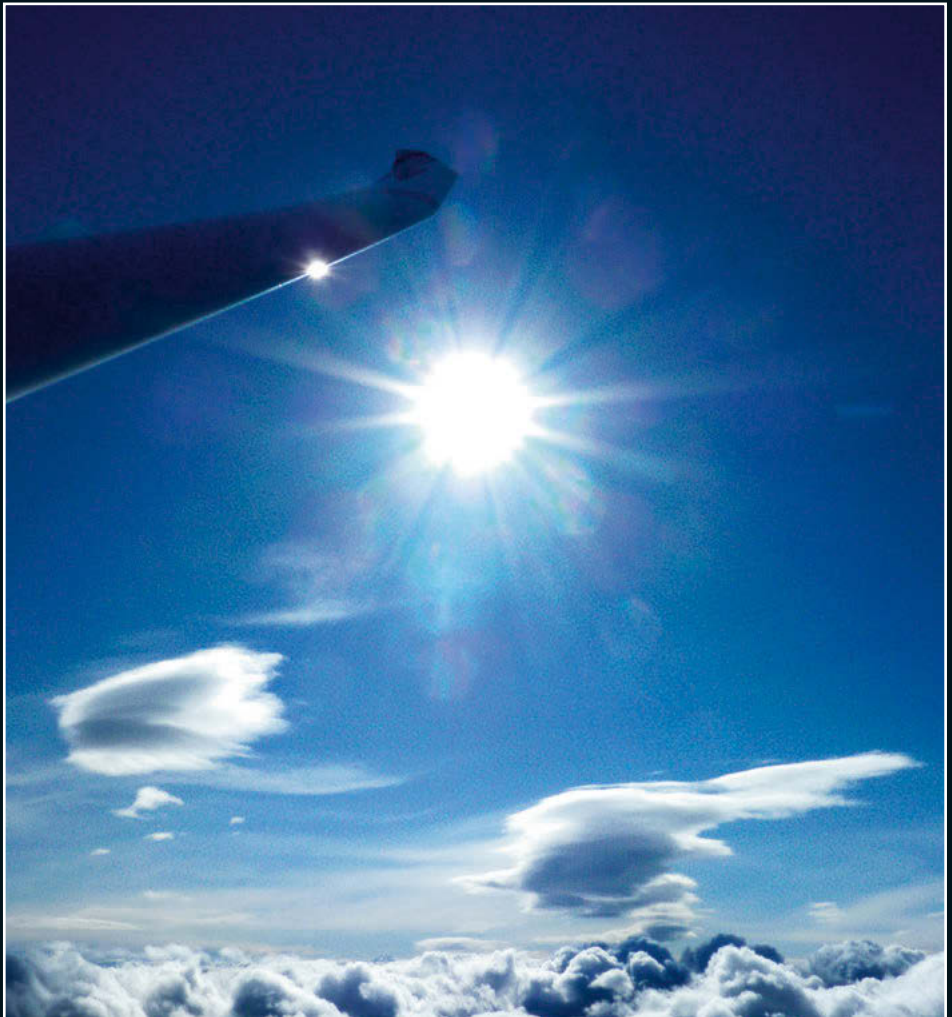
Crossing Loch Ness on the way back to Portmoak from further north on 16 April 2012 (John Williams)

Bicester's David Smith says that he was overwhelmed by a dose of artistry one April afternoon and took this striking photograph (David Smith)

Having read the recent article in *S&G* on breaking waves (p22, Feb/March 2012), Guy Hitchins was inspired to capture this scene on a recent holiday in North Wales. These were over the Rhinog mountains in the early morning (Guy Hitchins)

Approaching the Strathcarron turnpoint (Ross-shire) on Sunday 6 May. John Williams says he doesn't think it's been turned before. The photograph shows the sea loch leading out to the Cuillins on Skye, with a snow curtain falling from the cloud (John Williams)

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



WINNING THE MENTAL GAME

Bernard Eckey explains how you can keep one step ahead

MAKE sure you stay on top of the mental game, said the coach to a novice competition pilot at the beginning of his first regional championship. “Did I hear that right?” you might say, “sport psychology might be the key to success for our much celebrated top athletes, but does it really apply to gliding?” Well, I have news for you! If you think that the mental game is only important in other sports, or if you think that it only applies to top level

competition flying, think again!

Flying gliders requires only minimal physical strength, but few other sports demand such lengthy and uninterrupted mental effort. Regardless of whether we are flying cross-country for fun or we are competing in a top-level championship we always need to be one step ahead mentally. Sport psychology is just as important as practical skills – especially in difficult or stressful situations. Therefore we will now

learn how to master our thought processes, emotions and feelings!

Glider pilots never plan to fail, but it is a well-known fact that some of them fail to plan. If it is true that the difference between a dream and a goal is a plan then we need to consider some form of planning for an individual pilot and assist with the development of a tailor-made plan. In other words, first plan your work and then work your plan. Success is by far more likely if planned and individualised training programmes replace haphazard and ad-hoc coaching sessions.

Our seasonal sport combined with the uncertainties of gliding weather and the infrequent availability of gliding coaches require very careful medium- to long-term planning.

Let’s consider the case of an ambitious early solo pilot who is exhibiting some weakness (or problems) with soaring. The coach should put together a training plan aimed at further improving the pilot’s skill and theoretical knowledge. Developed in close co-operation with the student, the plan must revolve around the various constraints of both student and coach. It should also include suggestions for practising particular skills and a timeframe for future coaching flight(s).

Why is it necessary to go through all this trouble? Well here are some very good reasons for it:

- A plan puts a goal clearly in front of both student and coach.
- It will create a performance-enhancing environment.
- It allows the student to gauge his or her progress.
- It sets a realistic time frame for the achievements of goals.
- It fosters self-satisfaction and confidence.
- It allows an easy adaptation if unforeseen circumstances develop or a poor soaring season is encountered.

Putting the plan on paper is of prime importance and should be the very next step. But rather than placing it in a drawer it is best kept in a prominent place. There it can be reviewed on a regular, if not daily, basis where it constantly reminds the pilot of his or her goal and the preparations necessary for achieving it.

Not surprisingly, there are standard training programmes and detailed plans for performance enhancement available for almost all sports – except gliding. The three-year training plan detailed in my book is an attempt to change this.

The first step is to insert the pilot’s goal for each soaring season at the bottom of the plan. Please note that it is the coached person who determines the goal and not the coach. Financial constraints, family commitments and other limitations on the available time can best be assessed by the trainee pilot and although the coach’s recommendations should take a trainee’s possible under- or overconfidence into account they are just that – mere recommendations.

The next step is to insert the “stepping stones” for achieving the season’s goals. This is where the coach’s input is most valuable. Based on the skill level of the pilot in question the coach should provide guidance not only on the timing but if possible also on the



Whether flying cross-country for fun, or competing in a top-level championship, it is important to always be one step ahead mentally. Few other sports demand such lengthy and uninterrupted mental effort (Bernard Eckey)

GLIDER PILOTS NEVER PLAN TO FAIL, BUT IT IS A WELL-KNOWN FACT THAT SOME OF THEM FAIL TO PLAN

sequence of the various intermediate goals. After all that is done student and coach have a blueprint for the pilot's continued development with direction and focus. Now we only need to implement the tailor-made training programme, monitor it and modify it if and when changing circumstances dictate it.

Positive thinking

Avoiding success is simple; all we need to do is to allow ourselves to slip into a negative frame of mind. When we find ourselves in a difficult situation and decide that it is all too hard, or that the challenge ahead is far too great, we are on the fast track to failure. Fear of failure impedes the realisation of our potential. If deep down we fear defeat, we have already lost before we have even started. The misery is self-inflicted – we have succumbed to the power of negative thinking.

As with any other endeavour, a negative frame of mind must be turned into a positive one and this holds especially true if you want to have success in gliding, because a negative or defeatist attitude and poor performance go hand in hand.

But let's not dwell on negative thinking for too long – we don't want to waste time. And anyhow, all of this does not apply to you – you are the fortunate type of person with a positive mental attitude. If this is the case, let me congratulate you. You are made for success and you can just skip over this section.

Only if on occasions you slip into a negative frame of mind, feel free to read on. A negative frame of mind can be turned into a positive one with a plan; with a good dose of willpower and with determination. Provided you do it properly, and provided you are realistic, you will not only improve your gliding but also change your life for the better. Yes, the right mindset will have benefits far beyond your chosen sport and will impact positively on many other aspects of everyday life. Surely, that's enough incentive to give it a go, but the question is where do you start?

Well, the first step is to be realistic when it comes to motivating yourself. You can't expect to break a world record on your very next attempt or become the next world gliding champion overnight. It's just not reasonable and therefore bound to end in disappointment. Be more realistic and set yourself an achievable goal. An early solo pilot, for example, can aim for a one-hour soaring flight, but for a more advanced pilot a sensible goal might be a 500km badge. But whatever you do, you must believe in your abilities and you must be determined

to become an achiever. I know it's easier said than done, but success is not achieved by settling into familiar patterns of behaviour. To climb the ladder of success, a negative mindset must be turned around. Sure, we all get discouraged from time to time, but how we deal with it is what matters most. We need to get our mind into a winning mode and redirect it towards success. Every time a negative thought enters your mind respond with a positive one.

Concentrate on achievements and focus on successful outcomes. That is what positive thinking is all about. By adopting positive thinking, you not only motivate yourself but, simultaneously, others around you. A totally new atmosphere is created, one that breeds success, one of accomplishments and one that fellow pilots will want to embrace.

Positive thinking must be combined with problem-solving skills and the knowledge that the solution to the great majority of problems is to break them down into smaller ones. Put simply, overcome one small obstacle at a time and think of what you have learned while reading this. You have no excuse any longer – it contains all you need to know.

If you hit any obstacle, it is just a matter of remembering the relevant hints or suggestions and then implementing the solutions. If you are facing in the right direction, all you have to do is keep walking. If the solution to your problem doesn't come to mind straight away, read the relevant section of my book again, but, whatever you do, just do not give up on positive thinking.

Talk to yourself and reaffirm that you will manage this challenge and pass the test with flying colours. Practising positive self-talk isn't a lot of hot air – it is essential for gaining the frame of mind necessary for success. Replace negative thoughts with positive ones on every possible occasion. While flying locally, believe in your knowledge and your ability to find a thermal and successfully work the lift. When flying cross-country, have the willpower and determination to make it around the task, even in the most demanding of conditions. Not once, not twice, but every time you step into a glider.

■ This article is an excerpt from Bernard Eckey's *Advanced Soaring Made Easy*. The revised and extended second version is available at £35 from www.bgashop.co.uk

AVOIDING SUCCESS IS SIMPLE; ALL WE NEED TO DO IS TO ALLOW OURSELVES TO SLIP INTO A NEGATIVE FRAME OF MIND



Bernard Eckey is a pilot, instructor, record holder and head coach for South Australia. He flies an ASH 25 and has 3,500 hours (including multiple 1,000km flights and one 1,116km FAI triangle)



AVOIDING AIR

Sarah Kelman looks at how to avoid an airprox by minimising flight through busy spots and by pragmatic use of radio



Business jets have tiny windcreens and fly extremely rapidly compared with a glider (www.gulfstream.com)

POTENTIALLY A GLIDER MAY FIND A FAST-MOVING JET SPEARING OUT OF CLOUD AT HIGH SPEED

GLIDING is becoming increasingly constrained by larger volumes of controlled airspace. Although it should be technically possible for glider pilots on cross-country flights to obtain a VFR (visual flight rules) clearance through Class D airspace, we are all aware that it is usually impractical, or not available. Air Traffic Controllers are under pressure to separate meandering VFR traffic from high-speed commercial flights and are increasingly reluctant to permit transits unless their airspace is unusually quiet, or they can

“positively identify” the glider, ie using a unique transponder code.

The Civil Aviation Authority (CAA) is also aware that VFR flights are being squeezed into smaller areas of Class G airspace and that certain “choke points” exist where we are channelled into corridors, or around edges of control zones. The present financial situation has also had an effect on the numbers of aircraft movements, and many regional airports are trying hard to attract more lucrative

faster commercial traffic to their bases. This changing traffic environment directly affects every glider pilot who flies cross-country.

The BGA Airspace representatives have had many meetings with airports recently to discuss the best ways to avoid us scaring each other, or becoming the next mid-air collision statistic, without resorting to yet more controlled airspace.

Commercial traffic

We all know “power gives way to sail”, but this assumes that the power aircraft has both seen the sailplane and is able to manoeuvre out of the way! Usually, neither is possible.

Even relatively light business jets have very tiny windcreens, fly extremely rapidly (compared with a glider) and the pilots are incredibly busy when sorting themselves out to land, often at an airfield they are not too familiar with.

They are also not used to having to look out to the same extent as a glider pilot, because they fly mainly inside controlled airspace where ATC are there to stop them bumping into each other. They are also used to flying an approach in a certain way at big international airports and tend to use the same techniques at smaller regional strips.

Typically, a commercial arrival will be flying at 250kts below 10,000ft. They will aim to slow down to 220kts or so around 6,000ft (approaching cloudbase for us) and then further to 180kts when below 3,000ft and back to 140kts for the last 1,000ft. This is pretty swift and potentially a glider may find a fast-moving jet spearing out of cloud at high speed.

Not all airfields have radar and radar has many limitations when it comes to picking up a glider, so don't rely on an ATC controller keeping them away from us. The best mitigation we can have to avoid a conflict is to understand the usual traffic patterns at our regional airports outside controlled airspace, and also by keeping a “listening watch” on their arrival radio frequency when flying within 10nm of such an airport. Controllers would much rather a glider piped up to say you're in the area if you realise there's a possibility of a conflict, even if you don't use the correct phraseology. Plain English is always good!

Key areas to avoid are discussed for several airports below, but it is common sense to avoid the extended runway centrelines at approach heights (that's 1,000ft at 3nm, 2,000ft at 6nm and 3,000ft at 9nm or so) and also it is better to avoid the overhead, even when well above the ATZ (radar heads have a blind spot in the overhead and commercial traffic will often descend there).



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PROX

Departing traffic is less of a hazard as modern performance means that they are able to climb very steeply and get up into controlled airspace rapidly; yet another reason to avoid flying close to such an airport or above the ATZ.

Oxford (Kidlington)

Oxford are well aware of the problems of their proximity to Brize and the Weston danger area. They mainly use runway 19 (approach from the north) and try to keep their traffic to the west of the runway to avoid Weston (they cannot avoid the odd 'rogue' arrival though). Most aircraft arrive from the south and leave controlled airspace over the Brize zone at around 7,000ft. They then are given radar vectors north around the Charlbury VRP and towards Enstone, descending to 4,000ft and slowing down, then they are turned on to base leg about 8nm north of Oxford to join final near Upper Heyford. Traffic arriving from the north is given a continuously descending straight in approach (around 5,000ft at Banbury, 3,000ft at Upper Heyford, etc).

Obviously, their final approach crosses one of the busiest gliding routes for us going from east to west as we squeeze between Weston and Hinton parachute zone. It is recommended to listen on 125.32 when approaching Bicester from the east, or Chipping Norton, or even Little Rissington from the west if you intend to fly between the Brize zone and Banbury.

Figure 1, above right, shows typical approaches to runway 19 at Kidlington.

Cambridge

Cambridge have both corporate jets and larger military aircraft arriving for maintenance and they are keen to establish some sort of airspace (possibly a MATZ) to protect them. They have other issues with arriving traffic having to fit in with traffic at the busy London airports (Luton and Stansted), as well as avoiding Duxford and the military airfields at Mildenhall and Lakenheath. They mainly use runway 23 (approaching from the north east) again with final approach around 8nm (just inside Newmarket). Traffic will typically

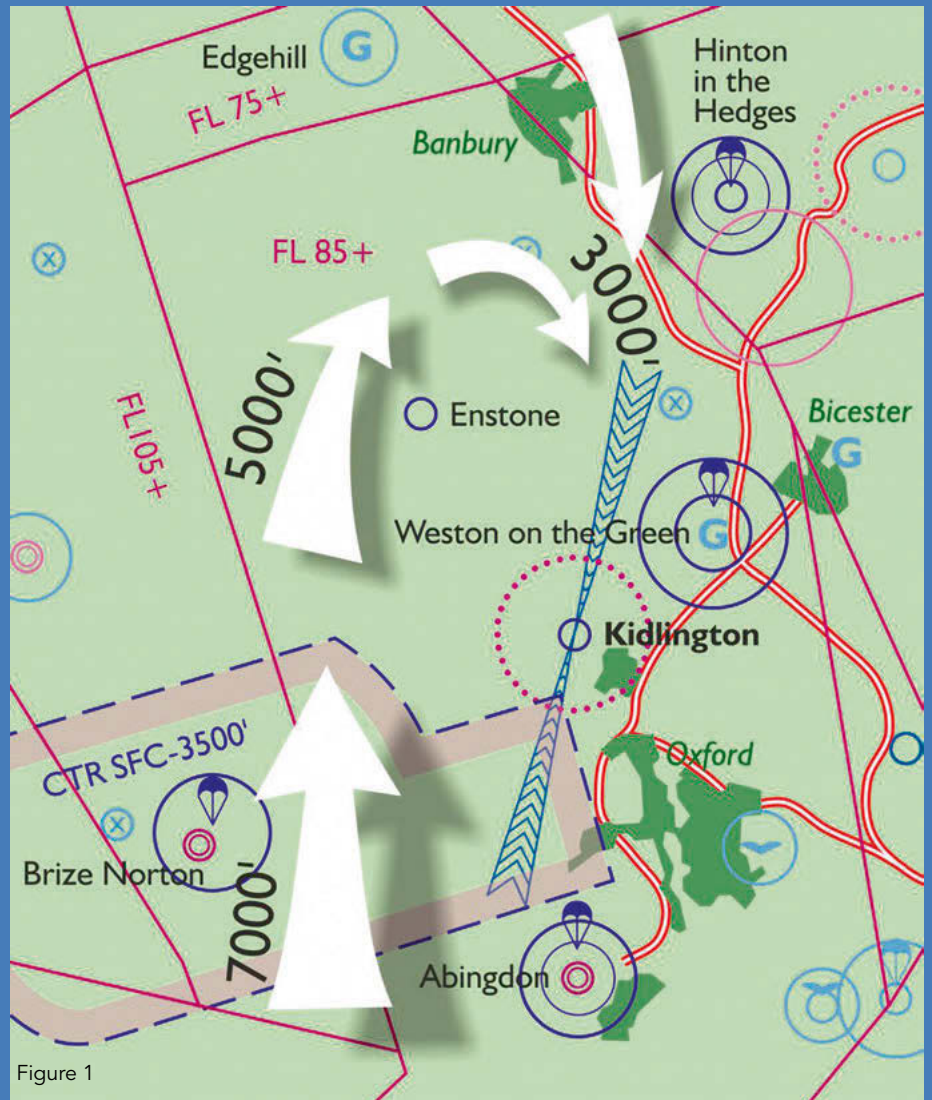


Figure 1

Kidlington (above) and Cambridge approaches (Illustrations by Steve Longland)



Figure 2



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arrive overhead or from the Duxford area at 7,000ft. Aircraft are then usually routed towards Sawston at around 4-5,000ft before turning downwind over the Six Mile Bottom turnpoint (around 3-4,000ft) and turning on base inside Newmarket. Obviously, a glider trying to avoid Cambridge ATZ to the south should listen out on 123.6 for any arrivals. They will also use the option of a similar pattern but north of the airport, taking in the Cambridge North turning point, if it is busy to the south, so you are not immune from high-speed traffic north of the city either.

When the weather means they are using runway 05, they will take traffic out towards Top Farm or Royston before they establish on a long final from the south west. This would mainly affect gliders flying locally to Gransden Lodge in brisk easterly conditions.

Figure 2, overleaf, shows typical approaches to runway 23 at Cambridge.

Southend

Southend have successfully enticed a scheduled operator to begin flights and will have had up to 18 airliner movements every day from the spring. At present, they plan to take traffic in via their overhead to minimise the time the Airbus spends flying in Class G and their procedures take them out only to around 7nm, but arriving pilots will be asking for more direct arrivals on to base leg when possible. Most flights should arrive from the London airspace at 3,500ft AMSL.

Cranfield

Cranfield have historically had mainly

light aircraft training but, again, are trying to increase commercial traffic. They have recently applied for a new instrument approach to allow arrivals from the south west.

Traffic will arrive on a long straight in for runway 03 from the Leighton Buzzard area at around 3000ft and descend in towards the airport. Their more usual arrival is from the overhead then out towards Bedford, again descending to 3,000ft before turning back in to runway 21.

Wave flights

There are also two main areas of threat to British gliders flying in wave. There is a daily service across the Pennines, between Newcastle and Belfast, which takes the flight right through the wave below the level of the Class C airspace. Similarly, the route which is currently Class F between Glasgow and Inverness is the busiest in the UK by far and quite large airliners descend from here over the Spey Valley when descending into Inverness airport.

Summary

The south of England is becoming increasingly congested with both airspace and commercial traffic. It is vital that recreational pilots are aware of areas of increased risk and intensity of aircraft and do all they can to help avoid an airprox by minimising flight through the busiest spots and by pragmatic use of the radio.

Sensible flying will help support our arguments to keep new controlled airspace to a minimum.

SENSIBLE FLYING WILL HELP SUPPORT OUR ARGUMENTS TO KEEP NEW CONTROLLED AIRSPACE TO A MINIMUM



Sarah Kelman started gliding in 1991 at Imperial College. Her first competition was in 1992 (Junior Nationals) and she was the Women's European Champion in 1999, World Champion in 2001 and 2007, and Standard Nationals champion in 2010. Sarah flies an ASW 28 from Cambridge



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THE PROCESS OF LEARNING

S&G instructing adviser Mike Fox talks to recent newcomer to gliding, Malcolm Taylor, from Staffordshire GC



Mike Fox (right) works to ensure high quality training is available to all

IT'S IMPORTANT TO RECOGNISE THAT EVERYONE HAS BEEN THROUGH THE SAME LEARNING PROCESS, MADE THE SAME BEGINNERS' ERRORS AND SUFFERED BOUTS OF LOW CONFIDENCE

MALCOLM: Mike, I've only been gliding for six months, so I'm currently going through my *ab-initio* training. I'm aware that you're the National Coach, but can you tell me more about your role?

MIKE: Malcolm, my role has actually just changed (see end of article), but at the centre of my work is an attempt to ensure high quality training that is available to all. Safety and fun flying is the driving force behind my approach. My main responsibility, though, is organising and ensuring standards for BGA instructors and courses, supporting examiners, coaches and courses in the field.

MALCOLM: An instructor's instructor, so to speak? Does this involve advising instructors on student/instructor interactions?

MIKE: It certainly does. And there are some new European rules on the horizon that will mean that, like it or not, instructors will need to have a better understanding of aspects of teaching and learning.

MALCOLM: I guess you've accumulated quite a few flying hours and some memorable

flights, but can you recall your first-ever flight in a glider? What were your thoughts?

MIKE: I was too young to remember my first flight in a glider, but I certainly remember the sensations. I seem to remember that I always wanted to stall – I loved that low g feeling.

MALCOLM: As a complete beginner, I found that there's a lot to take in during the first few months – not only getting used to the sensation of flying and handling the controls, but ground operations too. What advice would you give to the novice at this stage?

MIKE: You're right, it's a hugely steep learning curve early on. I think 'assumed knowledge' can be a problem. BGA clubs are quite good at grabbing new prospective glider pilots and getting them into the air. Quality instruction is the key to keeping

trainees interested and enjoying time at the airfield in the early stages of training. I sometimes see newcomers at clubs wandering around while the old hands just get on with things. My advice to a novice is to ask lots of questions all the time. No-one should mind a newcomer doing this. If members make you feel small because you asked one of those 'stupid, simple questions', move clubs. I mean it – there are absolutely no stupid questions, and no-one should be afraid to ask one. It's one of the basics that keeps people safe within aviation; that and, of course, listening to the answer!

It's important to recognise that everyone has been through the same learning process, made the same beginners' errors and suffered bouts of low confidence – you're not alone!

MALCOLM: Thankfully members at SGC made me feel very much at home, despite having to endure my constant questions! I more or less slipped into gliding following a couple of voucher flights, so I didn't know much about the sport at first. Can you recommend any books or articles for the absolute beginner?

MIKE: On one hand, the fact that there are always loads of things to learn is what's great about gliding, but this can seem overwhelming at first. I think it's important to take a scientific approach to things. First, understand what is possible within the sport. That's why S&G is so great for inspiration. Next, break down the skills that are required to reach the goal you set yourself. Only then can you figure out where to start reading. Obviously, we all have to learn to fly the glider first, and there several books dedicated to this. Check out the BGA shop for these. Other than that – ask at the club – especially pilots who have just trained. They may have some great recommendations.

MALCOLM: My constant companion is Steven Longland's *Gliding - From Passenger to Pilot*. It's very readable, the illustrations are excellent, and it's not overlong, so you can read it quickly. I go back to it each time I need to brush up on an exercise. I

also enjoyed your Beginners' Guide feature series, *The Fun Starts Here* in S&G. Lots of tips straight from the back seat!

MIKE: I think the other thing to bear in mind at this stage is to not get fixated too much on your goal. You will rapidly find out that if you want to set a new speed record, there are many steps to get there. The main thing to do is to enjoy the journey and anticipate the next step. I'm still enjoying the journey – I'm chasing that elusive LS4 750km flight!

MALCOLM: I'm still fixated on doing a "textbook" circuit, so not much chance of a cross-country yet! However, apart from the obvious safety advice in the textbooks and at briefings, are there any important do's and don'ts that you can suggest to someone new to gliding?

MIKE: As above – do ask loads of questions. Don't be shy! What sometimes frustrates me is that some gliding training is tailored so that solo is a massively important goal, and we lose many pilots once they have achieved this milestone. What pilots don't realise, though, is that being able to fly the glider is the key to some of the most exciting and beautiful experiences in aviation. Don't stop there!

MALCOLM: My club operates an instructors' rota, simply because of the number of students who want to fly. I've flown with half a dozen different instructors so far, and all of them do things slightly differently. It's been suggested that sticking to one instructor means more rapid progress. What's your view about training with multiple instructors?

MIKE: Most (but getting fewer) British gliding clubs operate in the fashion that you mention. This means that there's a different instructor on the roster every time you visit the club until the roster resets. The instructor examining team at the BGA, with this knowledge, try to ensure a standard approach to instructing, but that's a goal that's impossible to achieve completely. I always try to encourage instructors and pupils (that have a good relationship) to informally schedule training if they can. If that is not possible, there may be an opportunity to consolidate training on a week-long course at another club, or perhaps get together with instructors and pupils, and have a week at your local club if there is enthusiasm for it. I guarantee your training will progress in leaps and bounds.

MALCOLM: We have several flying weeks coming up this year, so I'm looking forward to being at one, if not more, of

them. The differences between instructors generally come down to the emphasis placed on a given task. On the whole I think I've benefitted from different instructors. That said, do you think there's an argument for student mentoring by a single instructor, by which I mean having one instructor responsible for training a student from start to solo, even if student and instructor don't always fly together?

MIKE: So, having said that being trained by loads of instructors is far from ideal, being trained by just one isn't (in my view) optimum either. I think that the experience of flying with someone else once in a while will help to highlight problems and opportunities that a single instructor cannot pick up on their own. Another problem is that, being human beings, instructors and pupils don't always 'get on', which can be a disaster if a pupil is committed to just one instructor! Your idea of having a mentor to coordinate training and advise is a good one though.

MALCOLM: Mike, during my early days of flying, I felt apprehensive each time I had a new instructor, probably because I was concerned about the impression my gliding technique (or lack of it!) would make. Do you think that instructors are generally aware of this?

MIKE: Yes they are – they know that students' flying skills deteriorate when faced with a new situation, which can include flying with a new instructor. Yet another argument for limiting the numbers of instructors students fly with.

■ **To be continued in the next issue**

Pete Stratten notes: With effect from the 1 May, the old National Coach role has been developed into a new role with new responsibilities and a new title of 'BGA Training Standards Manager'. As well as the on-going priority task of supplying high quality instructors for our clubs, the new role encompasses new and unavoidable developments brought about by EASA. Mike Fox brings the experience, qualifications and insight needed and we're delighted that he has agreed to make the changes. We'll all be hearing more from him in due course.



Malcolm Taylor took up gliding in 2011. He is training at Seighford



Malcolm Taylor says he has benefited from flying with different instructors at Staffordshire GC, but wonders if there is an argument for an instructing mentor to coordinate training



Mike Fox is the BGA Training Standards Manager. He flies an LS4 from Seighford and Pocklington



George Lee (right) and Ingo Renner in Finland after the 1976 Worlds



Team GB after victory in the 1978 World Gliding Championships, France (left to right): Dickie Feakes, George Lee, Steve White and Bernie Fitchett



Australian team pilot Craig Collings (front seat) was one of George Lee's students on the penultimate course at Plain Soaring



George Lee with the late Klaus Holighaus (left)

Three times World Gliding Champion George Lee MBE reflects on his exploits in gliding, competition flying and his love for silent flight

I WAS born in Ireland, just south of Dublin, and I had no connection to aviation with either family or friends. I did a lot of sea fishing in my younger years and I remember being fascinated by the sea birds soaring the local pier wall. I frequently dreamt that I was skimming along the waves in the manner of the albatross.

A friend of mine told me one day that he was joining the RAF as an Aircraft Apprentice. I read the material that he had and saw that it was possible to be commissioned at the end of the three-year training, so I decided to join up the same way. I discovered when I got to Halton that only two or three apprentices would be selected for commissioning out of an entry of some 160. As I was not gifted technically, I was not going to be one of that small group!

Just over a year into the training, I heard about the RAFGSA Centre at Bicester and I decided to try gliding to show motivation towards becoming a pilot. My first flight in a glider was in March 1963; a three-minute circuit in light rain off a winch launch in a T-21. I was enthralled by the experience, completely hooked; whatever happened in my professional life, I would continue gliding! I did continue gliding for the remainder of my apprenticeship and during my years working as an electrical fitter on the Hastings aircraft at RAF Colerne, during the course of which I became an instructor.

Against the odds, I was selected for officer and pilot training in 1967 and I did very little gliding over the next two years. When I completed my advanced flying training there was a backlog in the system and I was faced with the prospect of spending a year away from flying training before commencing weapons and tactical training. I contacted Andy Gough, CFI of the RAFGSA Centre, and he arranged for me to spend that year on the staff at Bicester. Apart from running courses and building a lot of tugging hours, I flew a K-6CR in my first competition in 1970, the Inter-Services. I won the competition and, as with my first flight in a glider, I was hooked. Competition gliding was exciting!

Gliding again took a back seat from when I commenced weapons and tactical training until I was established on a Phantom squadron at RAF Coningsby in 1971. I flew a K-6E in my first nationals at Dunstable in 1972, coming second. I then flew in various competitions over the next three years, winning the Open Class Nationals in 1974. I was selected to the British Team for the World Championships in Finland in 1976, winning the Open Class in an ASW 17. I was successful in retaining my title during the following two World Championships in France and Germany, becoming the first pilot to ever win three

GEO

consecutive world titles.

I left the RAF in 1983 and joined Cathay Pacific Airways to fly 747s out of Hong Kong for the next 15 years. They were rewarding years professionally, but my gliding really suffered and I just managed to stay in touch with the sport that I loved. I retired in 1999 to Australia with the first glider that I ever owned, a Nimbus 4DM. The pipedream was to conduct advanced coaching courses for junior pilots of different nationalities who had shown talent and motivation. The vision was fully realised and, by the time the courses finished in 2010, I had coached more than 50 pilots from the UK, Australia, USA, Austria and South Africa.

Gliding, particularly competition flying, has meant a great deal to me over the past 49 years. Gliding was my first flying love and it is now my last flying love. I have always had a competitive nature and, for me, World Championships flying was the ultimate challenge. To fly for Great Britain against the top pilots who I had read so much about was a great privilege. It also gave rise to a very high level of stress and the management of that stress was an extremely important part of my success. I was pretty well stressed out during the practice period before my first World Championships in Finland, but a private chat with the team manager got that sorted out. I was then able to relax and it was such a thrill to go from a high level of self-imposed stress to the sheer joy of victory.

As far as the next World Championships were concerned, I reasoned that nobody expected a newcomer to the scene to win a consecutive title. For the third championships I reasoned that nobody, but nobody, expected me to pull off the hat trick as it had never been done before! When I was flying in World Championships, pairs flying was not a part of the scene and I am thankful for that as I enjoyed flying as an individual.

Apart from World Championships flying, the most exciting event that I have flown in was the Smirnoff Derby in 1977. This was an invitation only, sponsored event and five of us flew from Los Angeles across to the North-East corner of the US. It was a privilege to fly

against pilots like Ingo Renner and George Moffat, although we usually never saw each other again all day after the "racehorse" start. Every day was a fresh navigational challenge as we flew over new, changing terrain, remembering that this was before GPS came on the scene.

Gliders and instrumentation have changed significantly over the years. The best glide angle of the ASW 17 that I flew in the seventies with its wingspan of 20.5metres is now being matched by gliders with a 15-metre wingspan. The use of GPS has made an enormous impact on the sport and en-route navigation and final glides can be flown today with a degree of accuracy that could not have been envisaged in the seventies. Handling has also been transformed, an important factor that reduces pilot fatigue and therefore contributes towards improved performance.

Although glider performance has improved markedly over the decades, the improvements have been incremental rather than dramatic. The next major step forward in performance may be associated with boundary layer control. Whatever the changes, we must remember that gliding is not all about technical advances. The late Philip Wills wrote beautifully about gliding, capturing the sheer romance and enjoyment of the sport as few have done. I hope that we glider pilots will never lose sight of the beauty and unpredictability of our wonderful sport.

I have been honoured to receive many awards over the years, the most prestigious gliding award being the Lilienthal Medal, which was awarded following my third WGC victory in 1981. It was also a very great honour to take Prince Charles up for his first flights in a glider in 1978.

I have had a blessed and privileged life and I have much to thank the RAFGSA for. GSA clubs have always been associated with a high standard of flying and quality of equipment. With talent and motivation being the key elements, the sky is the limit.

IT WAS A PRIVILEGE TO FLY AGAINST PILOTS LIKE INGO RENNER AND GEORGE MOFFAT, ALTHOUGH WE USUALLY NEVER SAW EACH OTHER AGAIN ALL DAY AFTER THE 'RACEHORSE' START



This picture of George Lee giving Prince Charles his first gliding lesson appeared on the Aug/Sept 1978 cover of S&G

(Below) Pictured with wife Maren, George Lee is currently engaged in getting his autobiography published See: <http://holdfasttodreams.com>



■ With thanks to the RAFGSA for permission to reproduce this article

RGEELEE

Olly Peters explains how being low was one of the highs of 43 hours' flying over the spectacular Chilean Andes

TODAY we race! That was the optimistic opening gambit by Chilean veteran racing pundit Alex Chanes on what was to be the last day's morning brief. This year, I had been lucky enough to be selected as a member of February's Royal Air Force gliding exchange to Chile, the aim of which was to promote good relations with the Chilean Air force (FACH) through the medium of gliding.

Travelling from London Heathrow Airport, via Madrid, I arrived with the four other RAF team members at Santiago airport. It was then just a 30-minute transfer to the military gliding club, north of the city. The club is co-located with excellent civilian operation Club de Planeadores (www.planeadoreschile.cl) at Vitacura airfield. (See Phil Sturley's excellent article in *S&G* June/July 2009 for more details about flying from this 2011 Grand Prix Qualifying location.)

The military side of Vitacura operations is used by the FACH to introduce the experience of flight to cadets from the local military academy in Santiago. To do this, the club utilises three Janus Cs and one Nimbus 3dt, together with a mixture of full-time and reserve glider pilots. All the reserve pilots are members of the civilian club and are well known to the RAF exchange, having given up their personal time over countless years to enable Brits to sample the wonders of the Andes.

Despite an unusually grungy-looking sky and strong forecast inversion, a 300km racing task was set by taskmaster Alfonso Soto. The task (Vitacura – Coppin – Leonera – Vitacura) was almost perfectly north/south and very similar to those used in previous Chilean Grand Prix Qualifiers; although a synchronised start would not be used. If the weather were to be as predicted, then the second/upper system of the Andes would be difficult, if not impossible, to reach today. A much better idea was to stay amongst the foothills and race up and down the so-called "outside".

Since solo flying in the Andes is seldom permitted, I was paired in a Janus C with ☼

HIGHS AN

> **SAILPLANE & GLIDING**
JUNE/JULY 12

> **FEATURE**
GLIDING IN CHILE

Main pic: Copper deposits in the Andean foothills. Taken from a Nimbus 4 during the expedition (Olly Peters)

WIND FLOWS

**ENSURING
WE ALWAYS
HAD A SAFE
ESCAPE ROUTE
AND, MORE
IMPORTANTLY,
THE SPEED TO
ENABLE US TO
FLY IT, WAS
CHALLENGING**



(Above) A copper mine some 200km north of Vitacura. Taken on another flight during the expedition.

(Below) Low down on the Andes (Olly Peters)



✂ the CFI of the civilian club and holder of a Chilean FAI 1000km badge, Arturo Diez. Launching throughout the preceding two weeks had generally been just after lunch. However, today's was slightly later due to the reduced heating caused by some smoke in the valley and the capping of climbs by an inversion.

We were aerotowed to the (by now very well known) 'thermal factory' of Manquehue. The small bump of a hill next to the airfield, although probably larger than most hills we have in the UK, had worked extremely well over the past two weeks. Today, however, having released off tow at 2,000ft above site, I was not met by the 4-5m/s thermal I was expecting. Only a weak climb a few hundred feet higher was found, and this took a long time. Starting at 2.30pm in weak conditions... was a 300km really on, I thought?!

We then pushed ahead to the first set of real hills north of the field, known locally as Gordo, although still pebbles in the grand scheme of the Andes. I spent a lot of time "treading water" until a useable climb was located, albeit a weak one. I don't think I have ever been up so close to power lines before... however safe in the knowledge that I could always turn west and head for the valley and local landing spots, including the airfield of Chicureo.

By this time, the other Janus and Nimbus gliders had joined us. We all parked on a bowl around 20km north of Vitacura that the Chileans call Lavatory – The Toilet. Nobody was really going anywhere. Although thermals could be found, they soon petered out at roughly 300ft above the hilltops, which made pressing on rather risky. Or so I thought...

Realising that the inversion was keeping a tight lid on things, Arturo emphasised the need to keep heading north. He insisted I keep as close as comfortable to whatever hill we were flying next to in a bid to ride any hot bubbles still clinging to the mountainside. He commented that only as the day's temperatures increased and we escaped the trapped smoke held in the valleys would hot air break way from the hillsides. Until then we would surf our way onward to the first turn point.

This was completely different from the previous flights I had experienced on

oxygen, in the high mountains and above 4,000m, but all good so far I thought... Then we reached the perturbingly named Death Valley. If we could cross this wide, flat, open space then we stood a good chance of finding a good climb on the hills of Lagunas and the 'cement works' – named due to their colour and poured appearance – on the far side. On previous flights I had experienced some superb conditions there, but we had first to get to them.

Clinging to the bowl-shaped valley sides, we traversed the valley rim to give us the best chance of arriving at the southern tip of the Lagunas range with a fighting chance of climbing. We got steadily lower and lower; now well below ridge top and without the necessary height to dominate the hills ahead, I was worried. Local knowledge is very powerful in the Andes and an unflustered Arturo knew just the spot we would find the next thermal – "it's Carlos' thermal," he proclaimed. Club member Carlos had been the first to find and use this low-level thermal that we now sought.

Carlos' thermal took us to a more comfortable height of 1,800m (5,900ft) QFE, around 2,500ft above the valley floor. However, this still didn't give us enough to push east into the higher mountains, which might have meant better conditions above the inversion. Very familiar with this type of flight, Arturo advised that it would actually be faster to remain west on the 'outside'. Although it would be riskier due to the lower operating heights, we would be able to fly a more direct route to the turn point.

Heading north, we jumped the valley of the Aconcagua River, east of the city of Los Andes, and on to the hills of the Democoen range. This produced no useable climbs and we steadily descended as we maintained wings level, close to the mountain for around 20kms and on to the next set of hills – White Stones.

These tooth-like outcrops, for which the mountain is named, had been facing into sun most of the afternoon; a nice climb was duly found, but only as high as 1,700m (5,500ft) QFE. Would this be enough to cross the final valley and continue the remaining 15km into first TP at Coppin? Arturo said yes, but we must tread carefully. His reasoning was that the TP of Coppin lies at the end of a finger of rock at 2,100m (6,890ft) QNH. If we used all of our height crossing this last valley, we would be unable to dominate the lower end of the finger and run up it to the TP. Arriving below would cost us time and we knew the

other gliders were not far behind.

Flying at best glide, but still hugging the now rather flat landscape, was hard work. Ensuring we always had a safe escape route and, more importantly, the speed to enable us to fly it, was challenging. It's not something I would have readily have tried if I was solo, but Arturo was always there to back up my decision making and, if necessary, suggest a more suitable alternative!

We made the crest of the finger of rock and ran it into the mountain, gradually gaining height, waiting for the GPS to count us down into the sector.

Now round the turn and heading south, there was only 225km to go. The first leg had taken close to two hours. I was exhausted! We continued back along the route we had come, taking the odd turn or two if the air felt good. Still nothing solid; when would the inversion break I though?! Arturo was not worried, "we need to keep going until the little hill north of Lagunas". More fantastic local knowledge!

We arrived very low, a gamble that would have seen us landing at Los Andes if it had failed. The fantastic climb of 4m/s to 2,500m (9,000ft) QNH was just what we needed! It also enabled us to push slightly inside and set up for a more direct route heading south, cruising over the east/west, running fingers that we would otherwise have had to go around. Wings level for 130km, Arturo kept close tabs on our height to ensure we had enough to make the next 'gate' and pass over the next outcrop of rock. Next stop, the range of hills east of our home airfield at Vitacura.

Arriving in the area, it was evident that some of the morning's smoke was still lingering. How would this affect the easterly facing ridges and would we make the southern TP? On we pushed a further 30km south and towards Montaña Blanco – the White Mountain. It became evident that the air was unusually still. As a rule, arriving at the White Mountain much below a quarter of the way up it (2,200ft QFE), even for Arturo, would be crazy. As we reached the wide valley preceding the mountain with only 900m (2,900ft), we needed to make a decision – turn back with enough height for home, or press across the valley and hope it would produce something.

We decided to push across in the full knowledge that if we were unable to climb it would mean landing at one of the grass strips in the valley. Being the final day of the expedition, and party night, did I expect anything less, I asked myself?!

I had flown on this mountain almost 🏹

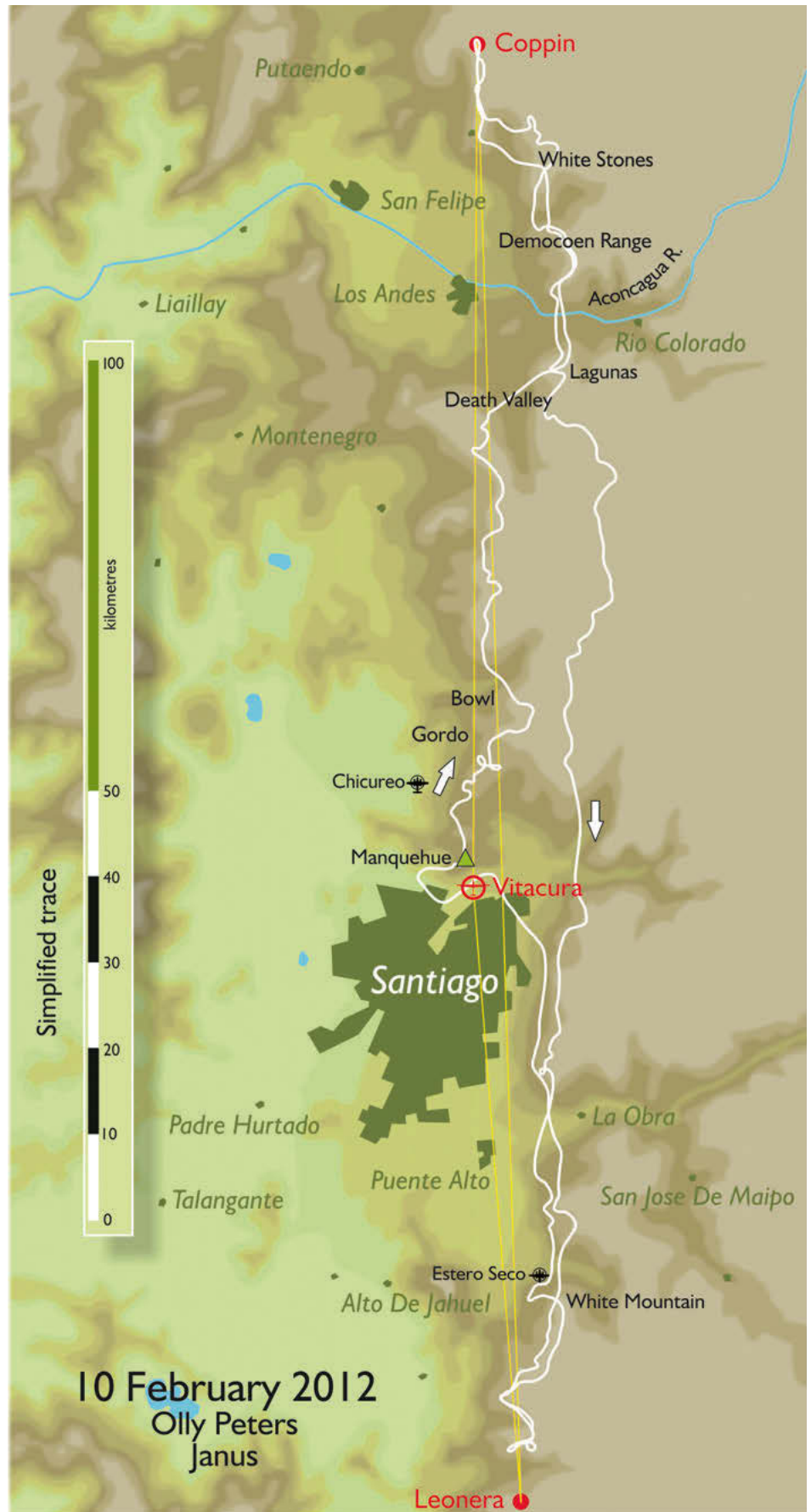


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every day during my time in Chile, usually arriving at around 1,000m (3,300ft), climb and then leave at its summit of 2,200m (7,300ft) QFE. It always gave fantastic thermals and was regarded as a 'stone bonker' by anyone who has spent much time flying around the local area. Imagine my surprise when we arrived at just 550m. I was low and out of ideas; it was time to hand over to the expert. At only 500m QFE, but only some 700ft above the valley floor, Arturo took control.

At this point, Arturo said two things that intrigued me: firstly that he had never been this low at this location and secondly that he had never landed out near here. I was hoping he would be correct only about his first comment.

For 25 minutes, Arturo scratched around over a small bump of ground in the foothills of the vast White Mountain. He had already pointed out the landing strip at 'Estero Seco', just in case we needed it. A weak hint of lift was found and, finally, the very knotty and at times elusive thermal became useable. We were back up and running, but not for long. This had been a lucky escape and one we might not be able to repeat if we crossed the next valley before the final TP.

We continued a little further south to see if it might be possible to get a climb before the valley and over into Leonera. Alas, it was too late in the day and the lower mountains, without their reserve of heat from a usual strong day's sun, were beginning to cease working altogether.

With regret we turned around 7km short of the TP with enough height for a careful,

best L/D glide back to the airfield. Time for a much-deserved beer in the bar.

The 10 flights/43 hours flying I did in the Andes were all spectacular, but this flight was so very different from the other nine. Always low – never above 8,000ft, but with the ground not much below – and with no oxygen needed, it was a completely different concept to cruising around the second system deep inside the Andes.

To say I felt "low" all day is an understatement. Any figures I had in my head as "gates" during the previous nine days' flying were merely over exaggerated "keep myself feeling comfortable" numbers!

To the seasoned Chilean racing pilot being so close to the hills, which could be relatively flat, sloping and almost bowl-shaped in places, was commonplace.

I am very grateful to Arturo and all the instructors, who gave up their time to fly with the Brit team on the expedition. If you ever get the chance to visit the club at Vitacura, I highly recommend it.

The Chilean people are extremely friendly, kind and generous. They also have the same love for the sport of gliding as we do in the UK; very professional and with superb instruction.

Oh, and just so you know, the thermal that saved us when very low in front of the White Mountain is now called 'Arturo's Thermal'.

(Above) The FACH Nimbus 3

(Below) Preparing to fly, members of the expedition fettling before launch (Olly Peters)



Olly Peters is an RAF Tornado GR4 Pilot on 31 Sqn at RAF Marham. He is a member of the RAFGSA and has 1,000hrs gliding, his Gold C and two Diamonds

IT IS TIME TO GET THE MEASURE OF GLIDING...

David Clark reflects on the somewhat confusing use in gliding of feet, metres and nautical miles, in this age of GPS and the atomic clock



Navigation is aided by the half million aeronautical chart. Heights are shown in feet, it is scaled for distances to be read in metres, and is necessary equipment for flights more than five nautical miles from base (Paul Morrison)

TRYING TO WRESTLE WITH THESE DIFFERENT MEASURES, I FEEL UNDER PRESSURE – OVER 1000 MILLIBARS OR HECTOPASCALS TO BE EXACT

GLIDING takes place in airspace that may be defined by the length of a Roman centurion's boot, Napoleon's mesure usuelle or, on a medieval sailing ship, the number of knots on a rope that unspools from a chip log in units of time measured with a sandglass. The foot, the metre and the nautical mile are used alongside each other, but often in inconsistent and illogical ways. Each unit has a respectable scientific pedigree and a body of adherents to which it is sacrosanct, but having three different measures, and using them in combination, is unnecessary and confusing. A review leading to a rationalisation would be helpful in the interests of simplicity and flight safety.

Miles, metres and maps

I am at launch point at Stratford on Avon Gliding Club, preparing to do battle with

the elements and the units. For a Silver C flight, I hope to be winched to 1,500 feet, to record a height gain of 1,000 metres, and to fly somewhere not less than 50 kilometres away.

Cross-country speed will be measured in knots so, after half an hour at an average of 50 knots, I will have travelled 25 nautical miles, or 28.78 statute miles or 46.30 kilometres. I shall not enter cloud within a radius of five nautical miles of a glider site (law 6.13), but will keep at least 1,500 metres from cloud when flying under VFR (law 6.21).

There will be strict adherence to law 6.23 with no flying closer than 500 feet from any person, vessel, vehicle or structure, but 600 metres from fixed objects. I shall maintain a minimum height of 1,000 feet above congested areas and will look down with

smug satisfaction upon those who, without written permission from the CAA, are limited to a 60-metre launch (law 4.1).

Tug and glider combinations, which have a minimum recommended aerotow rope of 150 feet (RP12), but a maximum total length of 150 metres (law 4.9) will be avoided.

Navigation will be aided by that paragon of cartographical clarity, the half million aeronautical chart. Heights are shown in feet, it is scaled for distances to be read in metres, and is necessary equipment for flights more than five nautical miles from base (law 6.18). One centimetre on the meridians and standard parallels equals 500,000 centimetres, or five kilometres on the ground. I could measure in inches and mark off my course in increments of 7.89 statute miles or 6.85 nautical miles, but I am not sure that would be helpful.

Parachuting drop zones and military aerodrome traffic zones are defined in nautical miles. Bizarrely, the size of aerodrome traffic zones is specified in nautical miles depending on the length of runways measured in metres. Is this to assist the pilots of French flying boats? Trying to wrestle with these different measures, I feel under pressure – over 1000 millibars or hectopascals of it to be exact. With 'take up slack' being signalled, my blood pressure surges above 140/80: that's millimetres of mercury!

The measure of safety

Significant implications for safety follow from using a multiplicity of units, and using them inconsistently. Simplicity and logic aid safety. Aircraft have become lost as pilots grapple with statute miles, kilometres and nautical miles.

Judging height and distance is helped by working in a single reference framework.



There are more important things to do in a crowded thermal, on the edge of prohibited airspace and at the limits of gliding range from base, than to try to convert kilometres into nautical miles by multiplying by 0.5396. Excessive workload clouds thinking – by several octas. Aircraft have run out of fuel when metric and imperial units of capacity are confused. This is not an issue in my club's K-18, but out of consideration to the villagers en-route, I must remember to take a litre rather than a pint pee-bag when I next fly cross-country!

Is it not time to consign the nautical mile to Room 101*, to join the cubit, the virgate and the carucate? It has a sound basis as one minute of arc at the equator, and is indispensable when working with Mercator's projection at low latitudes, but it is surely past its sell-by date in an age of GPS and the atomic clock.

Some fliers may wish to compare their progress with that of the Golden Hind, but here, in the Midlands, our concern is with relationships that are territorial rather than nautical. Some of the older members of my club are happier with rods, poles and perches (and pounds, shillings and pence). My preference is for furlongs and chains. The latter, being the length of a cricket pitch, is a unit of distance with which any

Englishman worthy of the name has an innate understanding.

A single measure of distance

Simplifying the measurement systems used in gliding could be the next task for the eurocrats at EASA. Indeed after glider registration and pilot licensing there is little else for them to meddle with.

The most obvious solution is to ditch the mile, both statute and nautical, in favour of the metre, which is the SI base unit of length. But this would infuriate admirals, meteorologists, cartographers, antediluvian aviators and little Englanders. And we would not want to hand the French a victory so soon after Waterloo.

It is fairest to annoy everyone and introduce a completely new unit of distance. Can I suggest calling it the merkel, with its smallest subdivision being the sarko and its largest multiple, the barroso? Adoption would be compulsory throughout the EU, but the UK would undoubtedly opt out. Perhaps I should keep my knotted line and egg-timer for a while.

Help, however, is at hand for those who mix up their measures and get lost during flight. You can always call the emergency service on 121.500 MHz. Or should that be FM, or VHF, or Long Wave? Don't go there!

**Cartoon by Matt Wright,
Devon & Somerset GC**

** Room 101 is a BBC TV series in which celebrities' pet hates are consigned to Room 101, named after the torture room in the novel Nineteen Eighty-Four, which is itself named after a meeting room in the BBC Broadcasting House, where Orwell would sit through tedious meetings*



David Clark started gliding in 2005 and flies from Stratford on Avon GC. He worked as a lecturer and researcher in Geography at universities in the UK and North America for more than 40 years

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2012 New Year resolutions

- 1 Check glider and do annual maintenance *Done ✓*
- 2 Book tickets to BGA conference 2012 *Done ✓*
- 3 Get competitive insurance quote from Haywards

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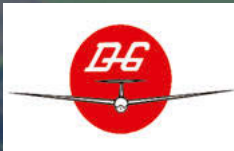
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IT'S DIFFERENT

Could the UK learn a few things from competition flying in Australia, asks Max Kirschner



IDEALLY YOU NEED TO CHOOSE A TASK THAT ALLOWS YOU TO MAKE BEST USE OF THE WIND AND USES AS MUCH OF THE SOARING BAND AS YOU ARE COMFORTABLE WITH

I FLEW my first competition in the early '80s in my K-6 CCU. It was not until my second competition that I completed my first closed circuit task; I remember it well. I started at 3,280ft flying at 50kts. Mick Boyden, flying a K-21, called gate just after I started. He dived down through the start at VNE, went past me and pulled up to well over 4,000ft.

The task was well set in a small area with haze caps and small wispy clouds. I got home at a speed of 50km/h – elated at having completed a task – only to find out that I got no speed points because Micky Boyden had gone around twice as fast. I learnt from that.

Competitions are a great place to learn what can be achieved. Not all tasks are so well set. I remember the first day of a regionals where we were set a 240km task. It was the day that Chris Rollings and Chris Pullen did the first 1,000km flight in the UK in an ASH 25 – to add insult to injury they did it from my home site. Sometimes an impossible task is set. I remember a 500km in the UK where the conditions did not develop as forecast and we all slogged on (for hours). Half the field landed out in one patch of sea air to the south of the country and the other half landed out in sea air to the east.

Competitions rules have evolved and, in the interest of fairness, or perceived fairness, new rules have been added. It is interesting to compare some of the ways that two different countries, Australia and the UK, have implemented rules:

- Multiple starts in Australia: 5km radius start semicircular quadrant in the UK.
- Restricted start height in the UK: unlimited height in Australia.
- Anti-team flying in Australia with a

dedicated radio channel for safety in Australia: team flying used to be commonplace in the UK – now banned in the UK nationals but it's OK in regionals.

- Compulsory FLARM in Australia, and you can use a Butterfly to read other competitors' climb rates: FLARM optional in the UK, but must be in competition mode, or is that privacy mode?
- In Australia you have a protest committee; in the UK you have Stewards.

With the plethora of rules, some of the fun has gone out of these comps and you almost need a lawyer to argue your case if you transgress. All of these rules mean you need competition officials to check you have not infringed the rules and volunteers are getting harder to find.

At the Gliding Club of Victoria at Benalla, we have run a Christmas Comp for a number of years. We have tried the Australian rules and handicaps, the British rules and handicaps and recently have adopted the On Line Contest (OLC) League Rules with the German handicaps.

The rules are simple (local rules).

- No registration fees (thanks to the Gliding Club of Victoria committee for providing the prizes – nice bottles of red)
- Pilots must be registered on OLC
- Pilots must have an approved OLC logger
- Pilots must upload their traces on to OLC before the next day's morning briefing
- Pilots must enter their intended route in the Search and Rescue (SAR) Book.

Rules for the OLC sprint task

Task distance and altitude difference
The OLC software optimises the task



DOWN UNDER

according to the following rules based on the recorded flight track:

- The scoring start, up to three turnpoints, as well as the scoring end, will be positioned so that the total distance around these points is the longest.
- The scoring end can be a maximum of 150 minutes after the scoring start.
- The flight from start to end has to be in engineless flight.
- The submitted scoring start and scoring end have to be points from the flight track.
- The scoring start cannot be higher than the scoring end.
- The scoring end is before the end of the flight.
- Scoring end is the time when the scoring arrival height has been reached.

Scoring

The average speed of the flight is the sum of the distances from scoring start, around up to three turnpoints, to the scoring end divided by the German Glider speed index, multiplied by 100 and divided by 2.5. Only flights with an average of min 20km/h will be scored.

Ethos

With four club tugs available at a price per minute rate, it is up to the pilots to decide how high a tow to take. With these rules we do not need to have a held start, or a maximum start height, or even to set a task. Depending on the start height, most of the final glide is not necessarily included in the scoring part of the flight.

Ideally you need to choose a task that allows you to make best use of the wind and uses as much of the soaring band as you are comfortable with. The more of the soaring

band you use, the more options there are for the software to choose alternative start points. The dedicated long-distance pilots can compete with pilots who are on their Silver distance or Diamond goal flights. The dedicated speed pilots can look at ways to optimise the points they can score, or you can just go and fly and let the software sort it out for you when you get back. There is no need to keep going on if the conditions get worse. There is no need to continue with a marginal final glide. One pilot landed out one day, but still achieved the second fastest handicapped score for the day.

The only competition official did the morning briefing, presented the prizes and, most importantly, flew the comp.

Total score for the comp

Daily scores are multiplied by 10 and added together, and the pilot or pilot pair with the highest aggregate score is declared the winner.

The pilot who flies the furthest raw day distance receives a prize. The pilot who flies the fastest raw speed receives a prize. We flew every day for the five days. Forty-five pilots competed. Tobi Gieger, a member of the Australian team, flying his LS4, won every day. Prizes were presented to: Tobi Gieger as the overall winner; Richard Robinson as the most improved pilot; Jennie Ganderton as the first female pilot; and Chris Becek for the furthest distance flown.

The competition motto was to keep Benalla SAFE (Safe, Affordable, Fun Environment) and it was. In all, over 44,250km were entered on OLC over the five-day period.

Why not try it at your club, or alternately come and fly at Benalla for the next Christmas Comp?

The grid at Benalla in January 2012 during the 31st Nationals (Eugene Lambert)

■ **Yorkshire GC has announced the first gliding competition in the UK to be based solely on OLC rules. 'Open Skies' will be held at Sutton Bank 28 July - 5 August, 2012**



Max Kirschner had his first flight in a glider as a Boy Scout in 1964. Not having enough disposable income to glide when he left school, he took up canoeing and represented Team GB at Marathon Kayaking for four years. Once the children were born, he did not have the time to train twice a day, so took up gliding again in 1980. He has 3,750 hours, two Diamonds and is a Full Cat instructor. He intends to give up instructing this year at the age of 60. Currently he flies from Bicester and Benalla

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Regional Gliding Examiners

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

Regional Safety Officers

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

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

Airworthiness Guidance

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

Accident Investigation

Chief Accident Investigator

Chris Heames

Other Information

Courses

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

Fees

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

Email News

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BGA Office Contact Details

8 Merus Court, Meridian Business Park, Leicester, LE19 1RJ

tel: 0116 289 2956 fax: 0116 289 5025 email:office@gliding.co.uk

CHAIRMAN'S COMMENTS

Pete Harvey, BGA Chairman, is leading a review of BGA media and online strategy

Ah... penning an article for S&G at the back end of four weeks of continuous gale, rain and flood. If only more countries did drought the way we do. We all love a touch of irony, but one must hope the soaring balance has been resolved with an absolutely stonking May.

To assist in developing a credible online strategy, the way the BGA publishes and deals with information and the web is under review. The issue has wide ramifications since, traditionally, the BGA has interacted with pilots via the clubs. Now the BGA has a one-to-one relationship because it delivers services such as airworthiness, licencing, etc, direct and the range of services is likely to widen still further, many of which are delivered online. And, of course, S&G is facing the same need to keep adapting, as do all periodicals. The emphasis will inevitably change, with even more of the time-critical announcements and reference on the web and with even more informative and thought-provoking info, with those cracking images, in printed form.

It's clear the issue of participation numbers and delivering our 'message' is shared by our international cousins. I've had contact from friends and fellow officials in gliding from around the world and the pattern of falling numbers and aging demographic continues.

Our online strategy and action is crucial to ensuring we optimise our chances of capturing the imagination of potential participants.

Pete Harvey, BGA Chairman, May 2012



Angle of Attack, by Lee Baldwin. Kindle version available from Amazon £1.98 See www.baldwin-books.com

ANGLE of Attack is an everyday tale of flying, drugs, murder and mayhem. Gliding instructor, Cicero Clay, fresh from prison, is desperately trying to stay alive and on the right side of the law (especially his attractive parole officer and her daughter), while at the same time tending a large cannabis farm, smuggling a stolen P-51 Mustang to New Mexico and trying to keep one step ahead of unknown people who apparently want him dead.

As a glider pilot, Lee Baldwin's love of flying shows through in the detailed flying sequences, which tend to push the envelopes, both literary and aeronautic. And maybe it's the jazz musician in him that compels him to play with extremes; extreme flying, extreme characters and extreme relationships. This is a book that will often nudge at the boundaries of your comfort zone. The cover notes promise "quirky" characters and as Clay journeys towards unexpected love, Baldwin introduces us to a veritable kaleidoscope of quirkiness, from the Vietnam veteran hermit to the incestuous, transgender twins.

Inhabiting the edgy world of the Californian i-Pad generation, this book suits the Kindle admirably and makes no excuses for forcing ageing reviewers to look up un-translated jargon on Google. (Would you know what an SEO geek was?). In spite of this, I know that a Kindle can be a boon on an expedition (mine holds

avionics and flight manuals, as well as all my holiday reading) and I was pleased to download an inexpensive book with a flying theme for when the thermals refuse to pop. As such, I would recommend it to open-minded readers as an intriguing novel, full of surprises and aviation allusion; good fantasy stuff to while away some hours beside a rainy airfield, but I'll probably keep it out of the reach of my mother!

Keith Clarke, Bowland Forest GC

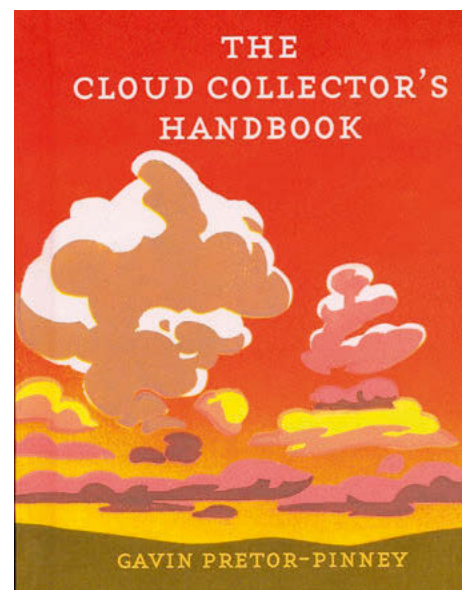
The Cloud Collector's Handbook

THIS little pocket-friendly book covers just about every cloud going and has a scoring system that would appeal to children, "anoraks" or serious cloud lovers. More common clouds like cu that are spotted score low points and the elusive ones such as the short-lived lacunosus more.

Most glider pilots restrict themselves to a bit of knowledge about cumulus or lenticulars, but there are 46 more varieties. Some, like the castellanus, could be useful to know as they tend to forewarn you of coming unsettled weather.

As well as describing and illustrating the clouds, author Gavin Pretor-Pinney tells how they are formed, all with a smattering of humour. Not every cloud has a silver lining, he quips, some have tutti-frutti coloured ones!

Bernard Smyth, Bristol & Glos GC



Published by the Cloud Appreciation Society (<http://cloudappreciationsociety.org>) and available from Amazon. ISBN-13: 978-0340919439. Hardcover. 112 pages RRP £10, currently £5.40

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BGA CLUB ANNUAL STATISTICS

1 OCTOBER 2010 TO 30 SEPTEMBER 2011



	MEMBERSHIP						FLYING				NEW PILOTS			
	Full Flying Members (Adult)	Full Flying Members (Junior)	Affiliated Members	Female Members	Temporary Members	Non-Flying Members	Winch Launches	Total Launches	Total Hours Flown	"A" Badge	Bronze Badge	Cross-Country Endorsement		
Andreas Gliding Club	12	1	0	0	3	0	32	69	15	0	0	0		
Angus Gliding Club	11	1	0	0	18	0	283	283	56	0	1	1		
Banbury Gliding Club	45	2	0	3	178	8	0	790	675	0	1	2		
Bath Wilts & North Dorset Gliding Club	73	9	51	8	0	24	1916	2541	1130	5	1	0		
Bicester Gliding Centre	136	6	84	19	1237	79	9396	11769	5000	7	6	3		
Bidford Gliding Centre	49	4	0	4	78	12	0	793	500	0	1	2		
Black Mountains Gliding Club	59	9	0	7	329	10	0	2256	2605	0	2	2		
Booker Gliding Club	128	17	0	5	630	24	0	4360	3145	7	2	1		
Borders Gliding Club	88	3	0	3	165	20	0	1595	1465	1	2	2		
Bowland Forest Gliding Club	95	8	6	12	327	35	2842	2842	1136	1	2	3		
Bristol & Gloucestershire Gliding Club	148	11	8	11	381	42	2779	4128	3338	7	2	1		
Buckminster Gliding Club	108	8	0	7	417	1	1695	3672	4615	0	0	2		
Burn Gliding Club	88	11	0	6	213	11	3397	3907	1097	3	1	0		
Cairngorm Gliding Club	33	1	0	2	61	0	65	708	738	0	0	0		
Cambridge Gliding Centre	190	18	173	19	812	86	7689	9145	5300	12	7	6		
Channel Gliding Club	24	2	0	0	138	1	671	695	125	0	0	1		
Connel Gliding Club	8	0	0	0	0	3	0	70	102	0	0	0		
Cotswold Gliding Club	130	21	76	5	561	65	5669	5981	2197	4	3	3		
Dartmoor Gliding Society	45	7	0	3	230	10	2799	2799	716	7	5	1		
Dartton Gliding Club	52	10	20	6	201	3	3170	3170	1005	4	0	2		
Deeside Gliding Club	50	12	0	9	198	50	0	1320	1516	0	0	0		
Denbigh Gliding Club	10	0	0	0	0	0	138	220	200	0	0	0		
Derby & Lincs Gliding Club	136	8	0	5	462	15	5737	5737	2408	3	8	1		
Devon & Somerset Gliding Club	128	11	26	11	395	25	6025	6462	1916	3	3	1		
Dorset Gliding Club	38	1	0	1	224	23	812	1374	444	2	2	0		
Dumfries & District Gliding Club	14	6	0	1	37	10	370	370	71	0	0	1		
East Sussex Gliding Club	91	13	0	5	169	39	1829	2825	973	4	2	1		
Eden Soaring	21	3	15	2	43	4	1537	1537	790	2	3	2		
Essex & Suffolk Gliding Club	109	9	0	3	512	3	5399	5399	1883	5	2	2		
Essex Gliding Club	54	6	0	5	126	10	1300	1436	640	0	2	2		
Glidesport (Bidford)	15	2	0	0	314	0	0	724	1500	0	0	0		
Herefordshire Gliding Club	27	1	0	1	48	5	0	546	498	2	0	0		
Highland Gliding Club	25	8	0	7	45	4	550	911	492	1	2	0		
Kent Gliding Club	120	33	15	6	397	27	3697	5358	1775	5	8	5		
Lakes Gliding Club	24	3	0	2	88	9	0	559	348	1	0	0		
Lasham Gliding Society	631	98	82	79	778	124	16314	23167	8000	31	18	13		
Lincolnshire Gliding Club	27	3	0	2	86	2	1082	1082	158	3	2	1		
London Gliding Club	243	13	0	12	847	40	7500	12615	6782	8	7	7		
Mendip Gliding Club	63	12	0	1	229	7	2088	2497	572	3	4	3		
Midland Gliding Club	117	10	5	12	216	24	5073	5423	2943	2	3	3		
Needwood Forest Gliding Club	44	3	0	2	274	16	2107	2107	470	2	1	1		
Nene Valley Gliding Club	47	5	0	2	198	13	2397	2531	674	1	4	3		

Norfolk Gliding Club	85	27	78	20	243	66	2474	3877	1586	5	5	5
North Devon Gliding Club	5	0	0	1	70	0	0	128	128	0	0	0
North Wales Gliding Club	30	0	0	2	90	1	1300	1300	195	3	3	0
Northumbria Gliding Club	49	8	0	4	223	2	649	1300	1300	0	0	0
Oxford Gliding Club	70	4	0	7	316	27	3094	3094	973	2	2	2
Oxfordshire Sportsflying Club	70	3	0	4	32	0	0	750	1583	0	0	0
Peterborough & Spalding Gliding Club	53	3	0	2	148	9	0	1306	817	2	2	2
Rattlesden Gliding Club	76	15	0	10	95	5	1581	2051	718	2	4	1
Sackville	2	0	0	0	0	0	0	60	30	0	0	0
Scottish Gliding Centre	273	19	129	15	506	0	8613	9937	6735	15	11	9
Shalbourne Soaring Society	53	1	0	3	250	4	2487	2487	827	1	2	3
Shenington Gliding Club	92	12	30	16	382	6	4911	5635	1954	5	3	1
Shropshire Soaring Group	16	0	0	0	29	3	0	181	290	1	1	1
South Wales Gliding Club	62	3	0	4	114	0	1008	1591	1000	1	1	2
Southdown Gliding Club	146	19	0	9	499	24	188	4503	3700	3	3	3
Staffordshire Gliding Club	67	13	29	6	24	24	3173	3992	1190	8	1	1
Stratford On Avon Gliding Club	80	9	5	4	414	15	5470	5470	1806	2	4	2
Surrey Hills Gliding Club	67	8	0	2	219	2	3988	3988	756	3	1	1
The Motor Glider Centre	13	0	0	1	4	0	0	500	355	0	0	0
The Gliding Centre	218	22	24	7	368	23	4258	7341	5115	8	5	4
Trent Valley Gliding Club	53	7	0	2	276	3	2643	2909	800	2	3	2
Ulster Gliding Club	49	6	19	8	310	3	0	1232	916	2	0	0
Upward Bound Trust Gliding Club	28	2	0	1	45	0	1267	1274	237	1	1	2
Vale of Neath Gliding Club	12	0	0	0	2	0	0	754	65	0	0	0
Vale of White Horse Gliding Club	30	0	0	3	124	0	0	643	480	1	2	3
Vectis Gliding Club	13	0	0	1	48	3	0	205	78	0	0	0
Welland Gliding Club	32	3	0	2	85	8	1214	1315	443	0	1	1
Wolds Gliding Club	144	24	30	14	457	41	6565	8311	3327	5	3	4
York Gliding Centre	102	16	0	4	470	12	400	2389	2500	3	1	2
Yorkshire Gliding Club	149	35	250	12	582	43	562	4272	4225	9	7	7
SERVICE CLUBS (AGA, RAFGSA, RINGSA)												
Anglia Gliding Club	21	5	30	5	51	0	1123	1155	282			
British Army Germany	14	2	0	0	10	8	430	433	145			
Wyvern Gliding Club	44	3	0	4	49	0	3870	3922	838			
Bannernown Gliding Club	67	10	0	4	119	0	3476	3951	1397			
Cranwell Gliding Club	61	11	90	17	30	0	3954	4288	1303			
Crusaders Gliding Club	39	1	80	1	4	0	2393	2393	377			
Fenland Gliding Club	45	0	0	1	40	0	1139	1577	420			
Four Counties Gliding Club	42	31	21	7	137	0	2269	2463	793			
Fulmar Gliding Club	26	2	0	3	15	3	See Highland GC					
Kestrel Gliding Club	40	8	4	0	110	0	1164	1320	260			
RAF GSA Centre	68	8	30	5	24	0	1859	4757	2087			
Wrekin Gliding Club	22	4	0	1	151	1	882	1125	337			
Heron Gliding Club	34	4	0	2	52	10	298	761	240			
Seahawk Gliding Club	21	2	0	2	12	5	481	741	245			
Portsmouth Naval Gliding Club	79	6	0	3	125	12	1533	4049	1237			
Totals	6318	765	1410	507	19019	1247	187074	261503	124103	291	188	155
							Air Cadets			32	1	1
							Service Clubs			39	19	17
Total Club Membership	9740											
Total Participants	27512											
Clubs	87											

The British Gliding Association (established 1929) is the governing body for the sport in the United Kingdom, representing and furthering its interests in an increasingly competitive environment. Its mission statement is "to provide effective leadership and continuity of gliding and soaring in the UK". You can use the interactive map at www.gliding.co.uk/findaclub/ukmap.htm to locate the club you require. University gliding clubs are listed at www.gliding.co.uk/findaclub/university.htm

WHAT IS AEROBILITY?

AEROBILITY is a charity offering disabled people, without exception, the opportunity to fly an aeroplane. Aerobility removes barriers and offers disabled people a real sense of achievement and genuinely changes people's lives.

Aerobility's specially-adapted aircraft fly from various airfields around the UK providing life-changing trial flights and flight training. Aerobility aims to support all kinds of disabled aviation and represents the needs of disabled people whatever their aviation aspirations.

Participants range from disabled kids through to soldiers recently wounded on active duty. Gliding is a uniquely challenging and satisfying form of light aviation and Aerobility is extremely pleased to be working with the BGA and the gliding movement to make gliding even more accessible to the disabled community.

■ www.aerobility.com
Mike Miller-Smith,
Aerobility Chief Executive



Photo: Aerobility



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

Make gliding more accessible to all

WHAT do you understand a disability to be? Do you automatically connect the phrases 'a disabled person' and 'is suffering from' or 'wheelchair'? What are your natural assumptions? These will vary widely and depend on each individual's experiences to date through work, friends or family and culture. Whatever your current position, it is important not to judge yourself or others; points of view are transient with some perspectives shifting more swiftly than others.

Take a look at the Paralympics later

this year to understand the complexity in classifying disabilities into classes so that athletes can compete on an equal basis. The double amputee sprinter Oscar Pistorius is an Olympic hopeful, provoking debate amongst those who feel his carbon fibre blades give him an unfair advantage over able-bodied athletes.

A disability may be physical, cognitive, mental, sensory, emotional, developmental or some combination of these.

The World Health Organisation has the following definition:

'Disabilities' is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives.

So when is something a mere difficulty (getting the lid off a jar - restricting one's participation in eating bread and jam) and when does it become a disability (needing regular assistance with food preparation)? Now consider yourself and others you know engaged in the activity of gliding, including the necessary ground activities such as

rigging and driving the winch. When considering individual capability to carry out tasks unassisted, allowances quickly widen to include people with less strength (perhaps women and older people). All instructors are trained to match teaching methods to each student's needs, using encouragement or moderation as required.

Within the sport we are very good at finding ways to help people to glide, or to continue to glide, as pilots age and bodies do not keep pace with the enduring spirit to fly. Were you aware that the glider cockpit is laid out in such a way so as not to inconvenience colour blind pilots? Few of our friends who fall into this category would consider themselves disabled, yet technically they are. We could also discuss the definition of a 'vulnerable adult' but this varies too, especially with situation.

Most people who do not in any way fit the WHO's definition of disability would freely admit to feelings of acute vulnerability as they clamber into the dentist's chair, however friendly the dentist... No, it is far better that in gliding we continue to address people as individuals in their own right and work with them to find solutions and teaching methods that work for them, so that more people fly more often and make the most of their potential.

To this end, the BGA is now working with Aerobility to ensure that gliding clubs are making the most of opportunities in this important area. Initially we need to find out what gliding clubs already have in place to aid people to fly (we're carrying out a short survey). Through a survey, clubs will be telling us what sort of areas they would like advice on and support with. We will then design a project to match the need and seek external funding so that we can get dedicated professional development support for clubs for the next few years.

We are not looking for quick fixes; we are looking at solutions that become normal within the sport and, for this to happen, the work will be supported by the BGA's Development, Instructors' and Technical Committees, with advice and support from Aerobility.



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■ Have you ever looked up and thought "If only I could get a launch!"? Well – here's the sky, and here's the winch. Come and get it. Alan "C" (Cicognani) took these photographs at Edensoaring's Skelling site in the northeasterly winds of 1 May 2012, which produced a beautiful Helm Wind



This page clockwise from top:

A self portrait taken at 17,000ft over the Pennines in early March 2012 in a Standard Cirrus (Rob Rose)

Avo Mangoian's BGA Diploma for his outstanding contribution to gliding was delivered to him in Cyprus by visitors from Halton (Paul Moslin)

Bowland Forest's K-21 BF1, prior to a day's flying (James Gerrie)

Facing page clockwise from top:

Alan Gibson, 74, set a new club record at Borders as the most senior person to go solo since the club was formed in 1969. Alan originally attended the club as a supportive grandfather, before being persuaded himself to fly

An industrious rodent managed to cache an entire bucket of acorns inside one wing of CGC's ASW24 over the winter. Getting them all out called for unusual techniques (Jeremy Thomson)

Dartmoor Gliding Society members Richard Williamson (left), celebrating completing his Bronze, and Matt Mackay, his second Bronze leg, on 8 March (Nigel Williamson)

The cast of the Burn 2012 Panto. The Wizard of Ouse. Left to Right: Ian Stoddart with tractor (Nathan Evans), Orville (John Shaw), Wicked Witch (Lesley Naylor), Dave Chafer with winch (Oliver Campbell), Wizard (Simon Houchin), Dorothy (Heather Ellis), Campo (Chris Cooper) and Belly (Mike Walker) (Photo by John Stirk)



Andy Davis (right) shares his expertise during a coaching week at Nympsfield

■ **Seaside ventures on Nympsfield coaching week**

A northerly airstream and high cloudbase on Sunday 15 April indicated a seaside trip, **writes Dominic Conway**. Our coaches, flying the Arcus, Nimbus and DG, selected St Catherine's Point and Eastbourne return. The Duo headed for two visits to the Dorset coast via Great Malvern for another 500. The fleet of single-seaters split between the two tasks. The two-seaters gave P2s a fantastic seven-hour day of intensive tuition and all returned with 500km. Matt Wright landed M5 at Sandown and two other pilots landed on the Dorset coast. Flight of the day was Alison Mulder's in her LS4 - she completed the Dorset 500km and was last home at 19:30.



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

CLUB NEWS

BANBURY (AQUILA)
WWW.BANBURYGLIDING.CO.UK
5204355N 00118784W

THE club trialled towing with the EuroFOX demonstrator in December and is now the first UK gliding club to have placed a firm order, due at the end of May as a kit and hopefully on line by August. We believe that it will halve our aerotow costs. We now wish to sell one of our two existing tugs, a 235hp Pawnee and 180hp Super Cub, and also our second K-13, to remodel the club's fleet. All our aircraft have had their ARC renewals completed, with many thanks to Peter Fincham and his helpers.

Robert Cronk

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

DESPITE major and minor surgery, Eddie Gunner has ensured we have our aircraft with ARCs renewed on schedule. He has made sure, with help from his workshop crew and Dave Strange, that we have everything in order and a working fleet of gliders. Thanks Eddie. Geoff Pook has taken over a number of the building and maintenance jobs, but we hope to see Nick back pottering around the workshop as usual soon. Our presentation evening in February was great. Cups and awards went to a range of members.

Jan Smith

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

AS the soaring season lands, preparations are under way for this year's regionals. Running 21-29 July, there are still places in both classes. We have had a couple of first solos, for Luke Edwards and Piotr Sirko, in the club K-13s. Alex Furness-Smith converted to the K-8 and Chris Palmer flew his first trial lessons after becoming a BI. Our cadet scheme is up and running, with this year's candidate selection due to be announced shortly. BGC is looking to assist those affected by Olympic restrictions with free reciprocal deals and great summer membership rates. For details contact the office or email enquiries@windrushers.org.uk

Lee Hitchins

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

AS I write, we are bathed in sunshine and many visitors from Booker and the Royal Navy are up

in the blue wave at 7,000ft. Talgarth is amazing, with wave appearing when least expected! Thanks to the efforts of one member, the airfield is looking the best ever, with cricket pitch flatness and mowing stripes to die for. We are operating seven days a week and our full-time instructor Bo Nilsson is about to arrive back for another season. After a successful (we hope) presentation at the BGA Conference, we are gearing up for a steady stream of visiting pilots – book ahead please!

Robbie Robertson

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

THE club's very successful expedition to Talgath has just concluded as I write; we had an amazing variation in the weather. Final planning is now under way for our temporary evacuation to Haddenham to avoid the draconian Olympic Airspace restrictions. Our thanks again to our friends there at Upward Bound Trust and the local organisations for making us so welcome. The activities while there include Bronze and Silver courses and a task week. We are pleased to welcome back Richard Crockett as course instructor and our two new seasonal tuggies, Martin Emery and Brian Connaughton.

Roger Neal

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

OUR AGM was held in March and we had a great year. Two additional members re-joined the committee – Ian Surley and Ian Sim. At the following prize-giving, Steve Rae was presented the 'Boomerang Trophy' for his 100km flight; Dave Wilson (Coulson Trophy) and David Scales (President's Cup) for their outstanding contribution to the club; Ken Sangster (Old Git's Trophy) for flying the Old Git's Triangle; and Iain Russell (Urwin Trophy) for his height climb to 21,000ft. Well done to all. The first of our wave weeks for 2012 is now under way with visitors from Darlton and Pocklington.

Rich Abercrombie

BOWLAND FOREST (CHIPPING)
WWW.BFGC.CO.UK
535301N 0023714W

DESPITE the weather, all enjoyed our Easter task weekend with the hot-pot supper and fabulous prizes. We even managed a bit of flying! Improvements to the kitchen and

hangar are well under way to bring them to the standard of our luxury launch control vehicle. As a Junior Gliding Centre, we've been busy networking and a number of school and Air Scout Groups are now booked in for air experience flying. We've also produced a multimedia CD promoting soaring to encourage more trial lesson visitors to return and take up the sport. Let's hope it works.

Keith Clarke

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

MARK Lawson soloed. Our new winchie, Girish Patel, is doing well. Congratulations to Doug Jones on the Royal Aero Club diploma. Graham Morris, Ray Lemin, Fred Ballard, Lynn Bilas and Richard Starling, had a joint party for significant birthdays combined with annual prize-giving. Trophies went to a range of people including: Trevor Stuart (two), Andy and Matt Davis, Alison Mulder, and Steve Eyles and Fred Hill for the best retrieve story. Christophe Mutricy received the Doug Jones award (young pilot's cross-country training). The University club elected Andrew Collings captain and Alex Jones treasurer. Oli Llewellyn remains chief instructor and vice president.

Bernard Smyth

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

OUR 40th Anniversary celebrations will take place on Saturday 9 June. Static and flying displays involving vintage and modern gliders are planned and there will be a hangar party in the evening. Past members and those from neighbouring clubs are very welcome. A 'Glider Aerobatics Club' has been formed to provide instruction on flying the world's best aerobatic gliders, the Fox and the Swift S1. For further information see: www.glideraerobaticsclub.com. If your flying is threatened by the Olympic airspace restrictions, then Saltby might be just the place to decamp. Task week is being run 4-12 August, with both winch and aerotow launching available.

Stuart Black

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

WE are still negotiating our new lease and are optimistic that, by time this is published, all will

(Left to right): Solo for Piotr Sirko at **Bicester**; Christophe Mutricy, winner of the Doug Jones award to encourage cross-country flying, is congratulated by Doug and **Bristol & Glos** chairman Colin McEwen (Bernard Smyth); Peter Kimber was sent solo by **Cambridge** instructor Andy Beatty



agree. Flying has continued with only a few days lost to bad weather. Some excellent social events have taken place, including another Burn pantomime, the Wizard of Ouse. We congratulate John and Pat Stirk on their Golden Wedding in March, marked by a celebration at the club. The event also marked a combined total of 105 years membership of the club, where they both still fly regularly. On a sadder note we report the death of Chris Townend, who first joined in about 1970 (see obit p70).

Chris Cooper

CAIRNGORM (FESHIEBRIDGE)

WWW.GLIDING.ORG

570613N 0035330W

CONGRATULATIONS to Ian Campbell on going solo. Members have been busy building the new trailer park, complete with buried multiple stone anchors, which will hopefully be finished in time for our very busy Mayfest – more on that next time. Thanks go to our inspectors for working hard over the winter to keep our fleet CofA and ready for the busy season ahead. Check out our website to see all that's going on at Feshie.

Chris Fiorentini

CAMBRIDGE (GRANDSDEN LODGE)

WWW.GLIDE.CO.UK

521041N 0000653W

OUR cross-country season started early, with four 300km flights, one 200km, seven over 100km and a notable land-out. Well done Chris Lewis, who completed 302km at 71km/h in his LS7 to bag the Kelman Clock award for the highest scoring off-season outing. Neighbourly airspace relations have been strengthened with a visit to Cambridge airport's hangars and tower, and a talk from the Lakenheath controllers. Congratulations to Peter Kimber and Beverley Vaughan for going solo, to Jay Derrett our newly-qualified winch driver, to all 11 members passing their Bronze exam, and to... myself for completing an NPPL in the club's Falke motorglider.

Jeremy Thomson

CHILTERN (RAF HALTON)

WWW.RAFGSA.ORG/CGC/

514733N 0004416W

MATT Davidson, Nige Smith and Gordon Howarth are now Ass Cat instructors, while Neil Beattie is a Full Cat. We welcome Paul Bellingham to the staff. 'Ski' Szuszkiewicz obtained his Silver height and 50km to complete his Silver. UCLU Gliding Club (at

RAF Halton, not Bicester) won two out of the three categories at the Inter-Unis last year, while Danny Boag soloed, Joe Borucki completed his Silver, Boris Kubrak soloed and did his five hours, Ben Manning achieved his Bronze, cross-country endorsement, Silver height and duration, and Daniel Martinez Oeckel also soloed and completed his Bronze, as well as Silver height and duration.

Andy Hyslop

CRANWELL (RAF CRANWELL)

WWW.CRANWELLGC.CO.UK

530231N 0002936W

DURING the past couple of months the weather has been variable. However, there have been some days where club members have enjoyed good soaring conditions, including a number of cross-countries. Hopefully these will continue throughout the rest of the year. Welcome to Rob Sumner and Alan Swan, both having completed their BI course – our CFI will no doubt keep them busy during the coming year. The fleet has been fettled, checked and polished in readiness for the conditions to come. Thanks to all concerned.

Zeb Zamo

CRUSADERS KINGSFIELD (CYPRUS)

WWW.RAFKROTIRI.CO.UK/CRUSADERS

3501N 03344E

THE flying has finished, but we have been clearing up, cleaning up, counting up and drinking up. Some of us have formed a syndicate and are in the process of purchasing two of the RAFGSA aircraft to enable us to fly once we find a new site. We celebrated (commiserated) with a BBQ in February and Avo made his famous Flaming Panties to warm our cold hearts. The nice guys from Halton came over at the end of March to pack a container to take back – and brought with them a BGA diploma, which was presented to Avo Mangoian for his outstanding contribution to gliding over the past four decades. We would have been lost without him. We hope to be able to fill this space again soon.

Jo Rigby

DARLTON (DARLTON)

WWW.DARLTONGLIDINGCLUB.CO.UK

531444N 0005132W

EXCELLENT conditions in early spring triggered an enthusiastic reaction. Annual checks are nearly completed, under the critical eye of the CFI, with emphasis on safe winch launching, soaring techniques and

field landings. In an initiative to get younger members into cross-country mode, the CFI set some mini-tasks, but the first to complete was occasional flyer James Swannack. Well done James and congratulations to Elspeth Case for a K-8 conversion and John Talbot for his Bronze. With wind turbines springing up in the area, urgent action has been taken through the Airfield Protection initiative. Spirits remain high at Darlton where a warm welcome awaits all.

Geoff Homan

DARTMOOR (BRENTOR)

WWW.DARTMOORGLIDING.CO.UK

503517N 0040850W

THIS has been the most promising start to the flying year for a decade. There have been many achievements, including, in March: Richard Williamson and dad Nigel (Bronze) and two cross-country endorsement flights later in the month; Matt Mackay renewed his second Bronze leg; Roger Applebloom went solo; and Mike Gadd obtained two Bronze legs and a one hour cross-country flight, whilst Dave Rippon also completed a cross-country flight, and Roger Applebloom and Nigel Williams both managed over two hours in weak wave. On 29 March, Alan Carter obtained Silver height. We held our AGM on 31 March.

Martin Cropper

DERBY & LANCS (CAMPBILL)

WWW.DLGC.ORG.UK

531818N 0014353W

WE have welcomed a good number of new members recently and the Neighbours Night, when we invite local farmers to come and have a meal with us, was a great success. Wave has made a welcome appearance and we have exploited it. Congratulations to Dave Reddie for completing his five hours and Silver height, and to Colin Ellis and John Beksa on completing cross-country endorsements. We also have a number of members training for instructor ratings, and thanks are due to ex-chairman Malcolm Blackburn, who has retired from instructing after many years' service. Expeditions to Lleweni and Portmoak are planned.

Dave Salmon

DEVON AND SOMERSET (NORTH HILL)

WWW.DSGC.CO.UK

505107N 0031639W

CONGRATULATIONS to Rowan Smith, James Hood and Matt Wright, who have completed BI training. The weather has seen some early



(Left to right): A motley crew at the final **Crusaders' BBQ** (Jo Rigby); Roger Applebloom is congratulated by **Dartmoor CFI Don Puttock** on going solo (Martin Cropper); **Hereford's** Bobbie Jones resoloed after 42 years; Siona Ladley is the latest **Norfolk** cadet to solo (Lauren Bean)



✦ cross-country flights and Ron John's task week is eagerly awaited. Matt Wright was awarded the Philip Wills National Enterprise Trophy during this year's BGA conference. This magnificent trophy was in recognition of a flight soaring the cliffs of the South Coast (featured in a previous S&G) and included a presentation and film footage. We were saddened to hear of the passing of Joe Acreman recently. A good number of club members, both past and present, attended a memorial service for a very popular man, who will be much missed.

Cheryl Smith

DORSET (EYRES FIELD)
WWW.DORSETGLIDINGCLUB.CO.UK/DGC
504233N 0021310W

FEBRUARY and March are usually quite good, but not this year. Tim Ambler has completed his Bronze with a three-hour flight to complete his cross-country endorsement. Neil Watton has completed his Bronze, and Anthony Sanders and Dave Poole have both passed their Bronze papers with flying colours. The work on re-vamping the old workshop has been finished by Barry Thomas and John Halford, with help from others, including Peter Domoney, helping Barry to make the roof watertight in freezing conditions. Thanks to the blessing of our in-house inspectors (and helpers) our club is well into its CofA/annual inspection period.

Colin Weyman

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

WORK has started on repairing damage caused at our site/runway. By the time you read this we are hoping to be flying after several months at a standstill. We are planning our flying week the first week in August, and hope to fulfil the trial lessons that have been purchased. The good news is that our enforced lay-off has allowed our chairman/CofA inspector, John McIver, to do a complete refurbishment and recover of our K-13. It looks superb! Congratulations to Richard Charnley, who has obtained his NPPL-microlight. Another bit of good news for our club at last.

Wendy McIver

EAST SUSSEX (RINGMER)
WWW.SUSSEXGLIDING.CO.UK
505423N 0000618E

THIS winter we decided to shut down during February and smarten up. We now have very

nice looking aircraft and the field is fully operational after years of dumping spoil and levelling. There's drainage work to be done, but the field is transformed. The Tuesday Group, headed up by Rowland Ogden and Johnny Jonson, has refurbished the clubhouse and made the bar into a watering hole that any parched aviator would enjoy. The improvements are being matched by a growth in membership. The club owes a great debt of thanks to its outgoing chairman, John Weddel, for all his hard work.

Jim Ball

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

WE are now back at Ridgewell after a most enjoyable time with Anglia Gliding Club – we even managed to have some long thermic flights. We extend our very warm thanks to Anglia for all their help during the winter. We hope you will come and fly with us at Ridgewell. It is with great sadness that we report the death of Don Ling, a staunch member since 1975, who will be greatly missed as an instructor, ex-CFI and tug pilot. He did an immense amount of work behind the scenes. Our very sincere condolences go to his wife Maureen, their sons and all his family.

Peter Perry

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

UNPREDICTABLE weather has resulted in gliding days to match. Poor visibility despite blue skies, easterly winds and high pressure systems made things difficult some days, while on others lengthy flights have been achieved and various targets reached, including Eddie Leach achieving Full Cat status and Jaques Loyez completing his Bronze. The AGM was well attended and the club's new five-year plan was presented, along with many commercial, technical and safety topics. John(s) Gilbert (senior and junior) dominated the trophies, but Jerry Newbery collected the Jerry Newbery trophy (there must be some dodgy dealing there!) while Mark Butcher and Clive Stacey collected the Instructors' and Members' Cup respectively.

Dick Skinner

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

CONGRATULATIONS to Bobbie Jones on re-soloing, 42 years after her first solo. She has progressed quickly, getting a Bronze leg with a two-hour fourth solo. Our regular visitors from Dunstable had poor weather and we hope that the Surrey Hills members are luckier when they visit. Finally, to show that you should always be prepared – on a February day, Phil King predicted light winds and no wave, so took a 1,700ft launch into thermals and found good wave. He returned five hours later, hungry and thirsty (no food or drink), having been to 10,000ft (no oxygen) and 240km to North Wales and back.

Diana King

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

CONGRATULATIONS to Tom Garner (solo) and new secretary Bruce Gordon (five hours). February and March saw thermal streets to over 5,000ft and lots of wave – Mike Foreman on a brief visit climbed to FL195 with Billy Fisher in the Duo, breaking off while climbing at 5kts. Lots of hard work has been done on the ground: thanks go to Martin Knight, Graham Donnelly and John Campbell for changing the winch gearbox; to Chris Gill and Andy Elliot for their work on the Chippy and to Stuart Naylor and Mike Laity for inspection work. Please note that, for safety reasons, all vehicles must now be parked beside the workshop/hangar.

John Thomson

KENT (CHALLOCK)
WWW.KENT-GLIDING-CLUB.CO.UK
51123N 0004950E

THE season is off to a good start. Our seven-day operation started on 24 March and already we have enjoyed some good soaring. Congratulations to Klitos Kyriacou, who completed his Silver distance in April. At our AGM Peter Mather stood down as treasurer. Peter has done an excellent job in recent years and has made a major contribution to the committee and the club as a whole. Phil Crab was elected as his replacement and Kathryn Waller was co-opted on to the committee. Following the success of our club expedition to Sutton Bank last year, Colin Beer is currently organising a further expedition, this time to Sherington in August.

Terry Webster

(Left to right): **N Wales'** Dave Compton receives President's trophy from Ken Payne (Neil Hughes); **Oxford's** Tom Longman is sent solo by Stewart 'Ottersburn' (Richie Hale); **Peterborough's** Mike Newton receives his wings from Paul Davey; last solos for **PNGC's** John Hale



LASHAM GLIDING SOCIETY (LASHAM)
WWW.LASHAMGLIDING.CO.UK
51112N 0010155W

CONGRATULATIONS to David Masson, Hugh Kindell, Graham Bell, Roy Pentacost, Patrick Naegeli, Adrian Emck, Ayala Liran and Graham Garnett on winning nine of the BGA performance awards for 2011 – also Hugh Browning for the CAA GA Safety Award for his work on the BGA Safe Winch Launch Initiative, which has significantly reduced fatalities and serious injuries. The first 300km and 500km flights got the season off to a cracking start in March. The Open Class Nationals will be at Lasham, where winners may celebrate in our refurbished bar. A drive has begun to raise funds for a vintage gliding museum and hangar.

Andy Jessett

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

AFTER poor conditions to start, the Dan Smith Memorial Trophy aerobatics competition was a great success: congratulations to winner Adam Lindsay. We have had expeditions to Shobden and Cerdanya. We have a soaring course/task week in May, followed by our "Jubilee" comp in June and a second task week in late July. Saturday evening events have continued with the members' forum, and a safety evening with Peter Claiden. These took place in the new Withall Room, a fully-equipped briefing facility with seating for up to 50 people. We are extremely grateful to Carr Withall and his family, who funded and managed the project.

Andrew Sampson

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

CONGRATULATIONS to Jack Tonkin, who has recently passed his BI rating. Jack is the first to do so from the recently-formed Junior Gliding Centre. Our CFI, Tony Webb, has begun his SLMG training and, when completed, will be looking for his MGIR rating. This has been possible thanks to the very kind funding received from the Sport England organisation. We send our deepest sympathies to the family of Joe Acreman, who passed away recently. Joe had been a long-term member of Mendip Gliding Club and had relentlessly kept the life of much of our MT in working order. He will be sadly missed.

Terry Hatton

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

OUR Dutch visitors returned for another week at The Mynd. Fifteen came this year and, although conditions did not allow for bungee launching, soaring flights were possible most days. March produced some unseasonably good cross-country days, with Iain Evans and Jon Hall managing 340km and 312km respectively. Various expeditions have been arranged, including the trip to Jaca. We have gained some new members. As well as the on-going redecoration of the clubhouse, in readiness for both the Wenlock Olympian Gliding Event and Competition Enterprise, work is now in progress to make a simulator out of an unserviceable K-13 fuselage.

Steven Gunn-Russell

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

OUR new (to us) twin-drum winch is in action and working like a dream. Thanks to Peter Valentine for all his efforts in facilitating this. Also, thanks to Di Hubbard for getting our clubhouse back in order ready for the season. Lastly, NVGC club members are currently gearing up for yet another planning consent mass-objection. This is in response to the news that land adjacent to our field is under consideration for not just one, but two wind turbines on our downwind leg.

Kerry Mertz

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

THE AGM and prize-giving was well supported and the season started with some good soaring days – unfortunately not good enough for anyone to complete the 'old' President's Triangle before the Norwich East turpint was removed from the BGA list because of new airspace. Our winter lecture series finished with a guest appearance from Mike Fox, who dispelled some of the myths of the gliding world. Siona Ladley became the latest of our cadets to solo.

Caroline Billings

NORTHUMBRIA (CURROCK HILL)
WWW.NORTHUMBRIA-GLIDING-CLUB.CO.UK/
54560N 0015043W

WE are celebrating our 50th Anniversary at Currock Hill on 11 August 2012. Any old members or associates, please get in touch

via our website. We plan to host an open day with activities. All are welcome. March saw some fantastic wave days and, thanks to new GPS/logger units, we've been able to learn through post-flight analysis. Congratulations to Malcolm Smith, who soloed recently. We hope to take delivery of our new motorglider soon. Thanks to all who have helped renovating the clubhouse and entrance hall.

Rob Rose

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

IN January, our CFI and only Full Cat stood down on health grounds. Keith Lewis, our number two instructor, had to acquaint himself quickly with being a CFI and arrange flight checks with area examiners at a time when the weather was against us. The cooperation of regional examiner Ged Terry was appreciated. Keith achieved his rating in March. Thank you to Ken Payne for his temporary stewardship as CFI, and also to Dave Compton, who at the AGM stood down from his third period as chairman. Welcome to new chairman Chris Jenks and to Julie Jones, who takes Chris' place as secretary.

Brian Williams

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

THE unseasonably fine weather has seen check flights and practice cable breaks galore. Dave Bray decided driving one of Mr Boeing's finest products isn't enough of a challenge for him and he has re-soled after a year or two's lay-off. Other notable firsts are Tom Longman going solo and the culmination of the winter lecture programme, which saw Mark Brooks, Lukasz Nasir and Barry Gleeson walk away with launch vouchers as the lucky winners of the hotly-contested post-lecture quizzes. My grateful thanks to all involved and to all the guest celebrities, gliding and otherwise.

Paul Morrison

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

FIRSTLY, congratulations to Mike Newton, our newest solo pilot, and to Paul Goulding, now tugging solo. There is talk of a short hop over to Upwood soon for our guys to winch, and theirs to scare themselves silly behind our tug. When it happens, PSGC pilots on the winch will do well to remember the words spoken to me by



(Left to right): **SGU's** Douglas Tait and wife Muriel present The Darren Powell Shield to Fiona, who collected it on behalf of dad, Harry Fleming; Ian Atherton (left) hands over the **Shenington** CFI's Award to Paul Mucha; **Hus Bos** solos for Callum McAllister (left) and Nigel Walklett, pictured with their instructors



☞ that sage and philosopher 'Bob of Darby': "Whatever happens boy, always leave yourself plenty of time to panic properly." Finally, as pointed out by one of our members, last issue mentioned trips to Borders and Milfield – same place! Should have read Milfield and Aboyne.
Martyr Edgar

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

THE season has got off to a cracking start with several cross-countries. We have renovated our briefing room and started on the offices. Our AGM went well. Our thanks must go to CFI Andy Durston for nearly three years of excellent service and we welcome Trevor Barnes as his replacement. Our long-standing member, "Ronald" John Hale, has hung up his boots as an instructor after 20 years and been promoted to a BI, but not before sending Jacqueline Pearson and Sarah McCulloch on their re-solos. We are looking forward to our first exped of the year, to the Long Mynd.

David Hurst

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

AT THE AGM, Martin Raper stepped down as chairman. We thank him for serving as an instructor, CFI, treasurer and chairman. Mark Manning is the new chairman, and is arranging flying on Fridays. Trophies went to: The Woody Winch Trophy and Cunningham Triangle cup – Pete Harrison; The Numb Bum Cup – Dave King; The Landlord's Cup (most improved pilot) – Michael Jillings; The Jean Towse Cup (meritorious flight in a club glider) – Paul Roberts; the Karen Wright Cup (services to the club) – Helen Page. Two original members have passed away: John Osborne and Dave Person.

Helen Page

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

OUR annual awards saw trophy winners: John Dunnington and Don Irving (Thorburn Two-Seater), Santiago Cervantes (Boyle Altitude and Height Gain Ladder), Colin Hamilton (Marshall 100km Triangle), Colin Hamilton and Martin Phillimore (Penswick), John Williams (Parker, Sutherland, Lomond and McClay Championship), Z Goudie (Docherty Distance and Hot Wings), John Galloway (Copeland), Johnny Paterson (Junior Ladder and Nick Wales

Cup), Alastair Mutch (Green), Harry Fleming [posthumously] (Darren Powell Shield), John Riley (Instructor's Quaich), Alex Stevenson (Service Salver), Fred Joynes and John Dunnington (Golden Towball). Recent achievements: Brian Thorburn (Solo), Gary Le Sueur (Bronze), Alex Rougvie (Silver Height and Duration), Martin Phillimore and Martin Fuller (Silver Distance, Gold Height and 100km O/R), Evan Pole and Mike Lithgow (Gold Height). The AGM was held in March with the following office bearers appointed: Alan Boyle (Chairman), Ian Easson (Vice Chairman), Alex Rougvie (Secretary), John Ferguson (Treasurer), Sally Woolrich, Chris Robinson, Hamish Eagleton, Neil McAulay, David Dodds and Malcolm Chalmers.

Ian Easson

SEAHAWK GLIDING CLUB (RNAS CULDROSE)
WWW.SEAHAWKGLIDING.CO.UK
500509N 051520W

AT our AGM in March, Jack Angove handed over his role as Civilian Members' Rep to Sid Hillman, after 34 years. Thanks for your support, Jack. Major airfield work at Culdrose in 2012 is likely to cause some disruption to our flying, but hopefully less than last year, as the main runway should be available most of the time. The Talgarth exped in March was a success. Thanks to Black Mountains for their usual hospitality. Congratulations to Chris Bryning on achieving his South African Diamonds.

Tony Richards

SHALBOURNE (RIVAR HILL)
WWW.SHALBOURNEGLIDING.CO.UK
512014N 00313239W

MANY members have taken advantage of the unseasonably hot weather to get in some welcome soaring. With one eye on the impending "Olympic ceiling" members are making the most of every opportunity. We have a new junior member, Helen. Sharing her initials with the club Puchacz's tri-graph, it was obviously meant to be. Congratulations to Steve Gaze for converting to the Sport Vega and to Jon Garner for convincing Carol to sign him "off checks" and completing his second Bronze leg.

Claire Willson

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

OUR seven-day operation is now running and we've been busy. At our annual dinner, awards were presented to: Paul Mucha (CFI's

award), Bruno Brown, Clive Smith, Graham Paul, Lucy Wootton, Eric Lown, Kath Barnes, Ian Atherton and Sven Goffart. In February we held a 70th Anniversary Whittle Jet Open Day to commemorate the test flights carried out at RAF Edgehill. Thank you to Jan Atherton for organising the events. We have a new committee, with Alan Langlands as chairman. Our next big event is the regionals in late June.
Tessa Whiting

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

KEY committee members have stood down this year – a big thanks to all retiring officials especially outstanding chairman Craig Lowrie. We are fortunate to have Andy Wood as our new chairman, with support from Alan Haines and Clive Bruce. Congratulations to Dan Laviada-Hernandez and Sam Taylor (solo), and Owen Bowler (Silver distance). A 400km plus flight by Michel Carnet secured the Merritt Shield at our awards, a trophy for "Old fashioned Gliders"; son Charles was named most promising young pilot. Sadly, we have to report the death of Bernie Littler, who, at 84, was our oldest active member and was involved with the club for 30 years.

Peter J Holloway

SOUTH WALES (USK)
WWW.USKGC.CO.UK
514306N 0025101W

OUR pilots have been making progress at all levels. A steady trickle of *ab-initio* members have used our winch to gain circuit experience. Andrew Tolley has converted onto glass, flying our Astir, and he and Ashe Lambe have gained the first leg of their Bronzes. Maureen Weaver was delighted that her 500km flight last year won her the California in England trophy. We now have a tug pilot rota for every weekday from May until October, so that members can make use of good soaring days. Nine members are off to Jaca with our Grob Twin Acro.

Stuart Edinborough

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

WINTER was busy with training flights on the winch. Dan Woolscroft soloed and John Lerner converted to the K-13 – congratulations. Steve Daniels deserves thanks for his willingness to operate the winch whenever needed. He has been rewarded with his Bronze and cross-

(Left to right): **Ulster's** Bill Hunter (left) was sent solo by Ted Norman (Tom Snoddy); **Upward Bound's** Gary Newbrook has moved up to an Open Cirrus (Chris Scutt); **VOWH** CFI Jane Nash awards Peter Berridge the Sweeney Tot (Jay Myrdal); **Wrekin's** Alun Williams was sent solo by Dave Judd (John Vincent)



country endorsement. April saw Derek Heaton do the first 100km. Our golf buggy has proven well up to winter and we're getting a second. Our Rallye tug had a thorough inspection this winter and is ready for summer. As one of the few clubs in our area offering aerotows, we are keen to help visiting pilots renew their skills.

Neil Frost

THE GLIDING CENTRE (HUS BOS)
WWW.THEGLIDINGCENTRE.CO.UK

522626N 0010238W

THE season has got off to a good start with three first solos, so the personal mentoring system for *ab-initios* is yielding excellent results. Congratulations to Jordan Pickering, Callum McAllister and his instructor Dave Lambert, and Nigel Walklett, who was sent solo by our resident instructor Chris Curtis and also did his Bronze leg. Our AGM was scheduled for 21 April and was followed by an early bird task week, 5-12 May, to which visitors were welcomed. We are also hosting the 18-metre Nationals, 16-24 June.

Tricia Tietema

TRENT VALLEY (KIRTON IN LINDSAY)

WWW.TVGC.ORG.UK

532745N 0003436W

ACTIVITY at Kirton stepped up a couple of notches on 1 April when 30 local Scouts descended on us. Coinciding with good soaring weather bringing out private gliders, the airfield was exceptionally busy. Our programme for visitors was particularly successful last year and we are confident of building on this in 2012. We offer reciprocal membership for all BGA club members and welcome individual pilots and or groups who wish to bring their own gliders to fly from our two huge grass runways. Please call in advance—01652 648777 or 07970 000101.

Geoff Davey

ULSTER (BELLARENA)

WWW.ULSTERGLIDINGCLUB.ORG

550819N 0065753W

CONGRATULATIONS to John Lavery, who was awarded a BGA Diploma. Also well done to Bill Hunter, who went solo in March. The most noteworthy flight recently was by Herbie McCullough, who reached 7,000ft earning his Silver height. We also flew our first Glidability group of the year and had amazing feedback such as "for the first time in seven years I actually forgot I had a disability!" Congratulations to Harry Hanna and Belle, who celebrated their 50th wedding anniversary over the Easter week.

Jo Myles

UPWARD BOUND TRUST (HADDENHAM)

WWW.UBT.ORG.UK

514635N 0005630W

CONGRATULATIONS to Gary Newbrook, who has converted to flying an Open Cirrus. We had our annual dinner in March, which was very well organised by Gayle, with Gary providing a slideshow of photos from the past year. Our AGM was held a couple of weeks later and was well attended. We give a warm welcome to our friends from Booker, who are temporarily relocating their operations to Haddenham during the Olympics, due to airspace restrictions.

Chris Scutt

VALE OF WHITE HORSE (SANDHILL FARM)

WWW.SWINDONGLIDING.CO.UK

513614N 0014030W

WE have finished our polytunnel hangar; built by a consortium of private owners to house four fully rigged standard class gliders. Our club dinner was well attended with excellent food. The Glass Trophy went to Steve Nash, the Clubman trophy to Jay Myrdal for services to the club and the Sweeney Tot (wooden spoon) to instructor Peter Berridge and Paul Kellett for landing out in a club K-13. Finally, the weekend of 21 July is our annual hangar party: The Flying Pig Festival 2012, with entertainment and gliding!

Jay Myrdal

WELLAND (LYVEDEN)

WWW.WELLANDGC.CO.UK

522758N 0003430W

THANKS are due to the Four Counties Club at Wittering for hosting our Grob and our hardier members over the winter. Preparations are now in order for the season ahead.

John Strzebrakowski

WREKIN (RAF COSFORD)

WWW.WREKINGLIDINGCLUB.CO.UK

523824N 0021820W

SNOW and ice in February provided excellent circuit training – with wheel braking ineffective, pilots had to judge their approaches perfectly. Terry Walsh won the competition for the first-hour-off-the-winch prize, with a good choice of launch time and making the most of a few strong thermals. Late February gave us a combination of ridge lift off the Wrekin, wave and thermals. Jon Francis-Thelwell went solo in our K-21, as did Alun Williams. Lee Woodbridge converted to a single-seater, just before his posting overseas. Congratulations to John Vincent for passing his Bronze.

Ian Redstone

WYVERN (UPAVON)

WWW.WYVERNGLIDINGCLUB.CO.UK

511712N 0014700W

DUE to various restrictions on access we were unable to fly for most of February. Thanks to the efforts of our chairman and others we are now back in operation. Congratulations to Ian McFarlane (solo and conversion to the Junior). Chris Pullen also converted to the Junior, immediately achieving an hour's soaring towards his cross-country endorsement. On 23 June, WGC will be hosting a day of aviation activities, followed by a formal dinner in the Trenchard Lines Officers' Mess, to celebrate 100 years of Aviation at Upavon Airfield.

Anyone wishing to join us should contact Dawn Hadlow: cdlhadlow@gmail.com

Sam Prin

YORK (RUFFORTH)

WWW.YORKGLIDINGCENTRE.CO.UK

5357100N 00111332W

OUR new CFI is Alan Wrigley, following the resignation of Mark Boyle after a long period in charge. The club's new yearly award scheme for the best contribution by a tug pilot went to Bob McLean, who has been taking gliders aloft for almost 30 years. A further award, for services to instructing, went to Andy Marvin for his high standards for more than 20 years. Seven members are well on their way to getting their Bronze this summer after passing their theory exams, following ground school run by the club. Congratulations to Harry Southworth, Karen Usher, Jack Hargreaves, John Fitzwilliam, Jim Baxter, Mark Perrier and Richard Donnelly.

Chris Brayne

YORKSHIRE (SUTTON BANK)

WWW.YGC.CO.UK

541338N 0011249W

I AM sure John Ellis was pleased to be reunited with his glider as it returned from a trip to Oz. Also back in the fleet is our K-21, beautifully refinished. Jesper Mjels has been upholding our reputation with a good wave flight of 270km and a height gain of 12,000ft. Well done. Congratulations to Chris Thirkell on his cross-country endorsement. The increasing membership doesn't appear to be put off by David Lynch on crutches. Also on crutches is Sarah Marsh, following a car accident. We have a busy year ahead with many events planned.

John Marsh

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



This year a trip to the Ulster Gliding Club may be of particular interest to those members of UK-based clubs affected by the 'no fly zones' due to the Olympics. The Ulster Gliding Club is located in Class G airspace with minimal airspace restrictions (Photos: Jo Myles)

> CLUB FOCUS

ULSTER GC

AT A GLANCE

Membership:

Full: £340pa

Junior (18-25): £155pa

Launch type:

Aerotow: £26.50 (2,000ft)

Club fleet:

K-21, DG 505 Elan & Grob Astir, K-13 (when available from QUB), Super Cub, Robin DR300

Private gliders:

16-20

Instructors/Members:

14/63

Types of lift:

Ridge, wave & thermal

Operates:

Every weekend, public/bank holidays and mid-week through prior booking

Contact:

Tel: 07709 808276 or 028 7775 0301 (weekends)
www.ulsterglidingclub.org

Long and Lat:

N55 08.30 W006 57.89

Radio: 130.1Mhz

THE Ulster Gliding Club is based at one of the finest soaring sites in Ireland. It nestles between the Donegal mountains, Lough Foyle

and Binevenagh Mountain - in not only an area of outstanding natural beauty, but also offering excellent soaring opportunities in all seasons. In the past this has permitted cross-country flights in excess of 200 miles over much of Ireland, with ascents of more than 23,000ft.

The club was formed 82 years ago in 1930 and has gone from strength to strengths. In December 1993, we acquired our first freehold site. The flat, 50-acre site lies at the foot of Binevenagh Mountain, which faces the prevailing west and south west winds and provides marvellous ridge lift.

The club's 13,500 sq ft hangar houses all our club and private aircraft.

In June 2007, the club introduced a K-21 glider fitted with special hand controls that make it suitable for flying by able-bodied and by those with disabilities of the lower limbs.

Throughout the warmer months we offer Glidability lessons to groups

with disabilities at a reduced rate. This programme has proved very popular, both with volunteer club members who help out on the day and with disability groups. Roars of laughter echo across the airfield and comments shared, such as "For the first time in seven years I actually forgot I had a disability!" and "What a fantastic day. I will remember it for the rest of my life!"

In 2011, thanks to a grant from the Rural Development Fund, we acquired our new visitors centre, which offers easy access for those with disabilities. Situated on the edge of the airfield, the new centre boasts modern kitchen and bathroom facilities, as well as comfortable surroundings and uninterrupted views of aircraft taking off and landing.

The site also houses club caravans and private caravans for those travelling long distances, should they wish to stay. There are shower and toilet facilities.

Quoting BGA Chief Executive Pete Stratten, who visited the club last year: "The Ulster Gliding Club is the BGA's best kept secret." Visit us soon.

Jo Myles

BROADENING HORIZONS

Flying with the Kent Vintage Glider Group

I HONK the aircraft's horn. "Take up slack.. all out." The yellow Slingsby Prefect lurches forward on its skid, the wind begins to flow through my hair in the open cockpit and I can smell the recently mown grass, *writes Mike Davis*. My hat flies off, the Dimona and glider combo take to the air and we start our gentle climb to 2,000ft on this beautiful summer morning in 2011.

No time to admire the North Downs yet on this, my first, flight as I gradually get to grips with the controls and flying qualities of this vintage aircraft, recalling the instructions and advice from my fellow (much more experienced) KVGG colleagues.

On release, some gentle handling exercises are followed by the inevitable return to earth. I am surrounded by Kent Gliding Club (KGC) members, most of whom are amazed that I have made it back in one piece in this duckling-coloured contraption, but who also (I suspect) have a secret admiration for this living and fully functioning piece of British gliding history.

Although I'm a shareholder in a glass aircraft, I feel I have come full circle since my early days of learning at Duxford with the late Ted Warner on T-21s and Swallows. Time for another go....

The Kent vintage group 'evolved' into existence in the early 1990s after a three-man syndicated Oly 2b was written off and a Swallow (then a hot ship!) was acquired from Waldershare Park, down the road, as a temporary replacement. This was refurbished (and is still at Challock) and joined by a Skylark 3b. Another Oly 2b and then the Prefect were acquired in the early 2000s. The KVGG attended a national vintage rally at Parham in 2008 with three aircraft and returned with six, including an Oly 463 (still with us) and a Rhonbussard (on loan from Chris Wills and returned to his brother, Justin, shortly before Chris died).

Membership of the KVGG has fluctuated

over the years and we currently have eight full and two youth members, with about 30 associate supporters within KGC.

All of us have shares in glass (aka Tupperware) aircraft and the group's total gliding time is in excess of 12,000 hours. Our highest achiever has all Diamonds. We number Full, Ass Cat and MGIR instructors, PPL (A) and (H) within the group. Our skill set includes engineering, languages (useful at international rallies) and the ability to consume reasonable amounts of gin after flying and still win rally pub type quizzes. Shares in the group cost under £1,000 and the monthly contribution is £25. Can flying get any cheaper and more exciting?

KGC recognises the value of KVGG and this is stated early on in the club's five-year business plan.

The doyen of our group is Bob Lloyd, who is well known in vintage and wider gliding circles. Bob soloed with the ATC at 16 and has glided ever since. His day job as an AEO on Victors or Nimrods would be followed by 'sorties' in gliders, wherever he was based in the country.

His devotion to the cause is illustrated by his marriage to Barbara in the registry office at Aboyne during a gliding expedition! Bob has achieved Diamond distance in a K-6 and Diamond height in our Oly 463.

Bob has been a BGA inspector for over 40 years and has lovingly restored our vintage fleet, which regularly wins prizes at national and international rallies.

Vintage gliding has brought a whole new spectrum of skills to many of our members, here at Challock. Why not form your own vintage group and broaden your flying, not to mention your social horizons?

■ If you want any assistance contact the VGC at info@vintagegliderclub.org

■ At KVGG we all look forward to vintage rallies. We have held successful ones at Challock in 2005 and 2010 (see S&G Aug-Sept 2005 for a photo of our fleet) and look forward to attending those at other sites in the UK and abroad - to catch up with old friends, meet new ones and enjoy flying at different clubs.

An annual highlight is the expedition in late June to Camphill, where D&LGC (under Rob Faulkner and Shirley in the office) pull out all the stops to enable pilots from the UK and abroad to experience the ridge and breathtaking views of the Peak District National Park.

KVGG's plans for 2012 include doing more flying in Kent after last year's dismal season. Our long-term aspiration is to build a hangar to enable our fully-rigged fleet to be more easily available to members and to display the fleet to the public.



Kent Vintage Glider Group members with the group's fleet (John Turner)

VINTAGE GLIDING HAS BROUGHT A WHOLE NEW SPECTRUM OF SKILLS TO MANY OF OUR MEMBERS

JUNIOR GLIDING CHALLENGES

S&G talks to Charlie Jessop, 20, who is the president of Durham University Gliding Society and one of the BGA's youngest instructors



Charlie Jessop introduced many of the initial DUGS members to glider flying. Adele Bennett-Ward was one of the first (Sam Budgett)

LAUNCHES TAKEN BY STUDENTS ARE OFTEN LAUNCHES THAT WOULDN'T HAVE HAPPENED OTHERWISE AND YOU CAN FIND A SWEET SPOT WHERE THE CLUB DOESN'T LOSE MONEY AND THE STUDENTS GET AN AFFORDABLE RATE

S&G: So Charlie, were you an airfield brat from an early age?

CHARLIE: Not really. Apparently there is a picture of me at eight weeks in a Discus, but my dad took a break from gliding quite soon after I was born, so it wasn't until I went on a school trip to Gransden Lodge that I got into it. My dad tells me that I got him back into flying.

S&G: Well you're finding your own way now – why did you want to become one of the BGA's youngest instructors?

CHARLIE: I know a lot of people put a lot of time into helping me when I was learning. The folks at Bicester put up with my inconsistencies when I wasn't flying often enough and the crew at the Mynd found just enough daylight in the week to send me off solo late on the Friday of a course. I thought it would be very cool to help other people the same way.

S&G: Did you start with a BI rating?

CHARLIE: No. I spent a part of my gap year in Omarama

working for Gavin Wills. I got my New Zealand Qualified Glider Pilot (QGP) rating there and did a lot of flying with friends I made out there. QGP isn't an instructor rating, but it lets you carry passengers like a PPL. Only when I got back to the UK did I do a BI course.

S&G: I think you flew at Bicester on its famous Groupon enterprise?

CHARLIE: It was great fun flying so much, though very hard work. It exposed lots of people to the sport and everyone went away with a good idea of what gliding is about.

S&G: And you were coaching a university club at the same time?

CHARLIE: Yes. University College London fly from Halton and Bicester. I fell in with the Bicester crowd and, while the BI rating is pretty strict about what you can do with members of the public, it doesn't say

you cannot work with pre- and post-solo students, encourage them and get them organised to do great things. They took the overall trophy at the 2011 inter-university competition and had a great week!

S&G: You weren't tempted to join them?

CHARLIE: I had to choose between Aeronautical Engineering at UCL and Durham. In the end, the course at Durham was closer to what I wanted to do, although walking into a ready-built gliding club would have saved a few headaches!

S&G: Did the coaching make you want to do an assistant instructor course?

CHARLIE: There's no doubt that with an AI rating you can do a lot more and be much more useful. For instance, teaching soaring really needs the instructional skills from the AI course to be effective. The BGA programme is really good – if tiring – and the team that presents it is excellent. I'm sure that Andy Roch at Dunstable was a bit concerned at getting another Jessop to teach – he had only just renewed my dad's rating when I showed up there!

S&G: And you now have a gliding club of your own?

CHARLIE: Ha ha! I'm now the president, webmaster, sole instructor and chief lift wrangler for the new Durham University Gliding Society. There was gliding at Durham a while ago, but it seems to have disappeared. I'm getting it back going. We have recognition from the students' union, fantastic support from the Yorkshire Gliding Club at Sutton Bank and a growing group of student pilots. Our first flying weekend had what I considered rubbish weather, but with just a gentle breeze on the ridge everyone got some soaring done; on the Sunday beneath an 800ft cloudbase!

S&G: What were the biggest problems you faced?

CHARLIE: Finding who to talk to. We had to work out whether the students' union saw gliding as a society or a sport. Eventually we decided it was a society, which meant we weren't competing for time and money with



rowing and rugby. Then you can see that people are terribly worried about liability and think that gliding is horribly dangerous, so they'd rather not deal with it. Once we found the right person at the student union it got much easier – they really want to deal with clubs that are going places, not ones that are on their last legs.

S&G: What about the host club?

CHARLIE: Everyone at Yorkshire Gliding Club was hugely helpful and very happy to see lots of keen, interested and energetic young people around! Launches taken by students are often launches that wouldn't have happened otherwise and you can find a sweet spot where the club doesn't lose money and the students get an affordable rate. There's no doubt that winching is more student friendly than aerotowing. YGC is hoping to do more winching and is clearing some trees so they can do so. If you see some Durham students with hacksaws in the middle of the night, you'll know what's going on...

S&G: Any animosity from club members?

CHARLIE: Certainly not so far. At Bicester we had three university groups (Oxford, UCL and Cranfield) and there was some good-natured joshing, but nothing serious. It's important that the deal with the club is transparent and well understood. At Sutton Bank we have been clear that if people need to bring their books to the airfield that's fine, provided they help out with ground handling some of the time. With a bit of teamwork we can make sure everyone gets flying and no one misses deadlines! People seem to find that perfectly acceptable.

S&G: Are finances a problem for students?

CHARLIE: For sure. Even people with parents paying their living expenses are paying for luxuries with borrowed money. You can't hide the fact the gliding is expensive, but it's not as expensive as people think. When you talk to people about private flying they think about Learjets or maybe £160/hour flying lessons in a Cessna. The relative cheapness of a winch launch comes as a surprise. We do need to find more ways to help though. Yorkshire Gliding Club has done great work to get its Clubmark status and that may open up some funding sources we can use.

S&G: Does gliding help with coursework?

CHARLIE: It's a bit early to ask me that. Certainly being used to teamwork was useful in a first year design project I did that year (and naturally our team won), but we don't really get into aircraft design and operations until later years in the course.

S&G: What has been the most impressive time in your brief gliding career so far?

CHARLIE: That's an easy one. Flying GlideOmarama's Astir at 23,000ft over Mount Cook and still climbing was amazing. New Zealand is an astonishing place and the gliding community is friendly and welcoming. I learned a lot while working there and would recommend it to any young glider pilot who is not afraid of hard work and prepared to get along with everyone.

S&G: And what about ambitions?

CHARLIE: Well I'd like to do rather better in this year's Junior Nationals. I've really enjoyed competing in the past two years, but this year with a lot more practice beforehand I'd like to do better and hopefully be more of a threat to the very talented junior pilots we have in the UK!

(Above left) Alice Spence had her first flight in the Yorkshire Gliding Club DG-1000 (Sam Budgett)

(Above) Charlie Jessop (left) with DUGS founder members Andrew Dawson, Alice Spence, Adele Barnett-Ward and Sam Budgett (Sam Budgett)

WITH A BIT OF TEAMWORK WE CAN MAKE SURE EVERYONE GETS FLYING AND NO ONE MISSES DEADLINES



Charlie Jessop has been gliding since 2007. He has a Silver badge and a Diamond height. He holds an Assistant Instructor rating and instructs at Bicester and Sutton Bank

BGA accident/incident summaries

AIRCRAFT		Damage	Date, time	Place	PILOT		P1 hours
Ref	Type				Age	Injury	
148	T-21	substantial	24/08/11, 14:45	Shenington GC	70/61	none/minor	990
<p>Damage to the cockpit area bulkhead, lower fuselage skin and seat pan caused by heavy landing after the glider was seen to pitch nose up, stall and hit the ground in a nose-down attitude. The handling pilot was flying from the left seat and, despite having a left side airbrake lever available, was flying the approach with his left hand on the stick and his right hand on the right side airbrake lever. Pitch oscillations observed during the approach indicate control confusion culminating in the final ballooned round-out and stall with insufficient height for recovery.</p>							
151	Nimbus 3t	substantial	25/09/11, -	Deeside GC	44	none	2300
<p>Tailboom snapped when the pilot deliberately groundlooped the glider to avoid running off the end of the runway. Fast, high approach in turbulent 90° crosswind into short runway ended in landing long.</p>							
152	ASH 26e	destroyed	29/09/11, 18:00	Bidford GC	-	none	3000
<p>Fuselage and engine destroyed by fire a few minutes after landing. The pilot had used and stowed the engine about 30 minutes before landing; on final approach he heard a loud crack at 200ft and then noticed the engine fire warning LED was illuminated. He reports that the LED was difficult to see in bright sunlight.</p>							
153	PA 18	minor	30/09/11, 11:50	Yorkshire GC	29	none	800
<p>Undercarriage collapsed after a lug on the fuselage broke.</p>							
154	Puchacz	minor	14/09/11, 17:30	Portsmouth Naval GC	-/39	none/none	920
<p>A noise from the rear of the glider was heard in the cockpit during the landing ground run. Subsequent investigation revealed that the lower rudder attachment point had failed, allowing the rudder to detach from the upper pivot point.</p>							
1	Puchacz	substantial	7/10/11, 13:50	Deeside GC	55	minor	129
<p>Fuselage cracked and damage to underside of the nose after the glider overshot the runway and landed in an area of mounds and rough grass adjacent to the airfield perimeter. After a normal approach in the strong, gusting wind, the pilot shut the airbrakes in response to a gust during the roundout, after which the aircraft flew the length of the runway in ground effect, with the airbrakes closed, touching down at the very end of the runway before running off into the rough ground. The glider was thrown 10ft into the air before landing on the nose and coming to a stop. The pilot suffered severe bruising and suggests that using two energy absorbing cushions saved him from suffering more severe injuries.</p>							
2	ASW 15	substantial	9/10/11, 15:45	Angus GC	48	none	6
<p>Heavy landing into undershoot area collapsed the undercarriage and damaged the fuselage. Unable to soar in the weak wave, the low airtime pilot returned to the airfield, but his non-standard circuit placed him too far back on final approach. When the pilot realised that even with the airbrakes closed he was unlikely to make it over the perimeter fence he opened full airbrake to land in the undershoot field. The glider sank through the wind gradient and, with insufficient energy to round out properly, the glider landed heavily.</p>							
5	Stemme S10	minor	15/10/11, 10:45	Scottish GC	74/-	none/none	4923
<p>Prop strike damage after touching down on soft ground tipped the TMG onto its nose. The strong crosswind made directional control difficult during the take-off ground run and the TMG hit a bump on the edge of the grass runway, flew a short distance and touched down again in the soft ground just off the runway. The wheels sunk into the ground with the engine still at full power and the pilot was unable to prevent the propstrike. The report noted the absence of edge markers to delineate the runway from the rest of the field.</p>							
8	Twin Astir	minor	22/10/11, 12:30	Herefordshire GC	63/72	none/none	3700
<p>Damage to undersurface of the wing after the glider hit and ran over APAPI lights after running off the runway. The student pilot was unable to maintain wings level and directional control in the 90° crosswind and after releasing the glider left the runway. The P1 attempted to brake and steer the glider, but reports that the wheel brake had little or no effect.</p>							
11	K-13	minor	16/10/11, -	Dartmoor GC	29	none	0
<p>Fuselage tube deformed and instrument panel split during a firm landing following a ballooned round out. The pilot, on only his second solo flight, shut the airbrakes in response to the balloon and then PIOd a few times before landing.</p>							
12	Puchacz	substantial	1/10/11, 14:45	Northumbria GC	66/-	none/none	1350
<p>Underside airbrake bent after catching in long grass on the airfield margin. The pilot was attempting to land right at the edge of the landing area so as not to hold up an impending aerotow launch.</p>							
14	DG 808	substantial	16/10/11, 16:00	Scottish GC	--	none	1619
<p>Undercarriage retracted during landing ground run, damaging the doors and retraction mechanism.</p>							
16	LS4	substantial	25/11/11, 11:45	Bristol and Glos GC	47	none	324
<p>Gel coat damage and possible further damage after a heavy touchdown during a field landing. The pilot's report cites a late decision to land, poor low circuit, short approach and distraction as contributory factors to a flown-on rather than held-off landing.</p>							
18	K-21	substantial	10/12/11, 13:10	East Sussex GC	49/67	none/none	1320
<p>Cracking and deformation to fuselage skin in nosewheel area and possible damage to main wheel structure following hard landing. The instructor intended to test the P2 with a simulated launch failure at an awkward height. The subsequent recovery put the glider in a position on final approach with full airbrake, but possibly insufficient landing room, so the instructor took control and entered a sideslip, still with full airbrake. At 50ft, the instructor straightened the sideslip and attempted to shut the airbrakes only to find the P2 holding the airbrakes fully open. Despite the instructor pulling the control stick back the glider impacted heavily on the nosewheel and then the main wheel.</p>							

BGA accident/incident summaries *continued*

AIRCRAFT Ref	Type	Damage	Date, time	Place	PILOT Age	Injury	P1 hours
Incidents							
149	Duo Discus	-	24/09/11, 17:00	-	-	-	-
Soaring flight aborted after an obstruction to aileron movement was noticed. Carbon fibre bracket subsequently discovered in wingtip, suspected to have been broken during rigging.							
150	K-6	-	6/09/11, -	-	-	-	-
Drag pin inserted incorrectly with the handle (not the pin) through the bushes. The error was missed during the DI and not noticed until the glider was being derigged after several flights.							
3	Grob Twin Acro	-	9/10/11, 16:40	-	-	-	-
Near miss with a recently erected temporary met mast. Soaring on the local ridge, the pilot moved in closer to leave room for an oncoming glider. The other glider radioed to warn of the ridgetop mast and the pilot realised that he had flown uncomfortably close to it.							
4	SF 25c	-	15/10/11, 12:15	-	-	-	-
TMG landed safely after engine trouble and power loss at 500ft after take-off.							
6	LS6	substantial	18/10/11, 11:30	-	-	-	-
Strong wind gust blew the wing over while it was being extracted from the trailer during rigging. Impact with the trailer put a 50cm crease in the wing and damaged the top layer of fibreglass.							
7	ASW 20	none	19/10/11, 12:35	-	-	-	-
Canopy started to open during the aerotow and, in attempting to hold it closed, the pilot got out of position and started to tip the tug. Both tug and glider released the rope before landing safely. Distraction during pre-flight checks cited as a factor.							
9	Junior	none	26/10/11, 15:30	none	-	-	-
Canopy opened during the winch launch; the pilot released and landed ahead. After completing his pre-flight checks, the launch was delayed and the pilot opened the canopy again, but omitted to fully lock it and repeat the pre-flight checks before being launched.							
10	Astir	none	28/10/11, 15:25	-	-	-	-
Canopy opened during winch launch.							
13	Perkoz	none	12/11/11, 10:30	-	-	-	-
Previously reported as 113/2011							
15	Astir	-	16/11/11, 11:30	-	-	-	-
Canopy opened during winch launch and the subsequent landing was flown without airbrakes as the pilot was holding the canopy shut.							
17	Perkoz	-	20/11/11, -	-	-	-	-
Split pin that should have secured a clevis pin in the rudder cable linkage was found to be missing. Another split pin securing a clevis pin was found to not have been folded back and could also have worked loose.							
19	K-13	-	3/12/11, 10:00	-	-	-	-
Two squeegees used to wipe raindrops off the glider were left in the rear seat as the glider was towed to launchpoint. Only one was removed prior to flight, the other had fallen under the rear seat and was not discovered until after the glider had flown several times.							

In an S&G survey, conducted in January 2012, you told us that you would like to see more in-depth coverage of accidents and incidents. Edward Lockhart is now providing a little extra detail, where available, in these listings. We would also like to publish your stories of particular flights that have taught you a valuable flying lesson. Please send details to editor@sailplaneandgliding.co.uk or by post to the address on p3.

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BGA BADGES

No. Pilot Club (place of flight) Date

DIAMOND DISTANCE

1-1174 John Haigh Southdown 15/04/2012

FAI DIAMOND BADGE

7294 Christopher Bryning Seahawk 26/01/2012

GOLD

Kenneth Powell Herefordshire 07/01/2012

Evan Pole SGU 14/02/2012

Russell Francis Bristol & Glos 22/01/2012

David Hayden London 08/04/2012

GOLD HEIGHT

Gerard Robson Highland 20/09/1982

Kenneth Powell Herefordshire 07/01/2012

Mike Lithgow SGU 15/02/2012

Martin Phillimore SGU 14/02/2012

Evan Pole SGU 14/02/2012

Johnathan Williams Bannerdown 29/03/2012

(Portmoak)

Russell Francis Bristol & Glos 22/01/2012

Stephen Tilling Shropshire 29/10/2011

David Hayden London 08/04/2012

(La Cerdanya, Spain)

William Fuller SGU 14/02/2012

SILVER

Adam Watson SGU 24/05/2011

Martin Phillimore SGU 14/02/2012

John Randall Midland 20/03/2012

Keith Weaver Heron 03/07/2011

Thomas Berriman Essex & Suffolk 01/04/2012

William Fuller SGU 14/02/2012

CROSS COUNTRY ENDORSEMENT

Duncan Pask Yorkshire 08/02/2012

Jeffrey Price Southdown 25/02/2012

Andrew Mayer Bicester 03/03/2012

Owen Bowler Southdown 25/02/2012

Timothy Marlow Bath, Wilts & North Dorset 17/03/2012

Harry Southworth York 12/03/2012

John Beksa Derby & Lincs 21/03/2012

Philip Dungleinson Lasham 22/10/2010

David Brunton SGU 18/03/2012

Russel Trickey Channel 24/03/2012

Stephen Coles London 28/03/2012

John Lyle Southdown 31/03/2012

Michael Featherstone Derby & Lincs 01/04/2012

Off Dale Four Counties 01/04/2012

Chris Harrison Lasham 06/04/2012

Anthony Wilson Southdown 06/04/2012

Timothy Clark Vale of White Horse 08/04/2012

John Cockfield Seahawk 15/04/2012

Timothy Wills Heron 03/04/2012

Timothy Ambler Dorset 08/04/2012

Lee Hitchins Bicester 12/04/2012

Jonathan Sugden Booker 14/04/2012

Tim Sykes Deeside 17/03/2012

Chris 'Ponty' Townend (1947-2012)



CHRIS TOWNEND died on 1 April 2012 after a short battle with liver cancer. He was the husband of Joanne and the father of Andrew.

Chris was born on 16 March 1947 and went to school in Pontefract. It is thought that he got the name "Ponty" at Doncaster Gliding Club (now Burn Gliding Club) to distinguish him from other members called Chris. He had a winsome smile and a twinkle in his eye, often a sign that something new he had found, experienced or had an idea about, was just about to be shared with you.

Chris started flying early in both the club's history and his life. He was a very enthusiastic club member, constructing and maintaining winches, becoming an instructor, being a tug pilot, flying cross-country, representing the club in inter-club league competitions and playing a big part in the move from Doncaster to Burn.

Chris was a syndicate member of a number of gliders, including an Olympia 463, a Kestrel 19, a Dagling Primary and, latterly, the M200 and the IS28M2.

Adventure was often associated with Chris' gliding career. In the 1980s, at the end of a long competition flight in the Kestrel, he confused the cruise flap lever with the landing flap lever and overshot the airfield. The subsequent impact with a bush on the edge of Sutton Bank

then tore off one flap. Despite the glider rolling and diving out of sight, Chris regained his composure and landed in a field at the bottom of the ridge.

Chris had the longest flight in the Dagling Primary, getting to 4,000ft in the plume over Eggborough Power Station, before getting vertigo and returning quickly to the airfield.

He worked for many years within the Retail Card Division of Nat West Card Services and, latterly, for Lloyds TSB. When Nat West moved his job to be office-based in London, he chose to live in Doncaster because it was "within commuting distance of the office".

Chris and Joanne got married in France in 2005. Chris never let common sense get in the way of purchasing anything, including gliders, cars, motorbikes, houses, tools and particularly gadgets. It was often Joanne's role to temper his enthusiasm to purchase unsuitable items, because Chris always had the perspective of a young man throughout his life. Even when purchases went wrong, everything was an adventure and had a funny side for him.

Two of the many purchases Chris did get entirely right were his Harley Davison motorbike and a second home in North Eastern France. Those of us who visited Chris and Joanne in France were subjected to generous hospitality, including Chris' speciality, namely barbeques with meat from exotic

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creatures. Chris retired two years ago and from then on spent over half of his time in France. He was a larger-than-life, one-of-a-kind character, who will be sadly missed.

Matt Ellis, Burn GC

Dennis Henley (1925 to 2012)



DENNIS HENLEY, who died on 2 March, was not so much a member of the Surrey Hills Gliding Club, but more an institution. He flew regularly, usually in his favourite K-8, but was much more obvious as the club's winchmaster and chief engineer.

His introduction to the world of aviation came at the beginning of the war when he joined the Fairey Aviation Company at the Great West Aerodrome on the A4 (which subsequently became Heathrow), where he managed to scrounge the occasional flight in a Fairey Firefly.

After Fairey's, he moved into engineering and moderate success eventually gave him the means to learn to fly powered aircraft at Biggin Hill. Unable to obtain a full licence because of breathing problems he, together with Margaret, his wife, took a gliding course at Feshie in 1973 and subsequently at other sites. In 1990, after retirement gave him more time, he joined the Surrey Hills Gliding Club, where his engineering skills were soon called upon. His masterpiece was to build a new twin drum winch from scratch, powered by an air-cooled Deutz truck engine, which served the club for many years.

He regularly joined trips to other clubs and, on one such trip to Husbands Bosworth, he explained that the reason for his continuous use of the K-8 was the wish to get 2,000 launches on type in his log book. He achieved it.

His health put paid to his active gliding career a few years ago, but he will be remembered as a careful pilot and superb engineer, albeit happier with an angle grinder and a welding torch than with more precision engineering. Margaret regularly attended club events and trips away with Dennis, and our thoughts are with her and their two daughters.

**Peter Bolton, formerly chairman,
Surrey Hills GC**

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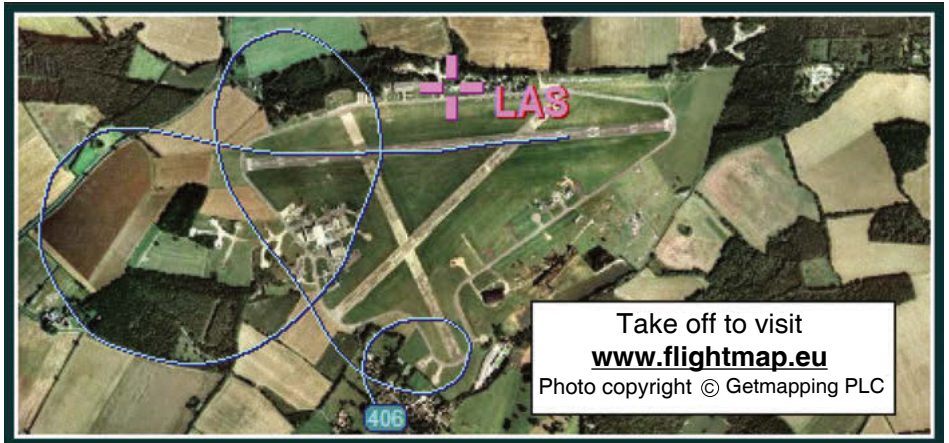
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