

SAILPLANE & GLIDING

VOL. 63 NO.4

**IS THERE A THERMAL
FOR ALL SEASONS?**

**HOW WE CAN ALL
BENEFIT FROM
REGULAR TRAINING**



**AEROBATICS WORLD RECORD
FOR 13-YEAR-OLD ROBBIE**

AT THE DOUBLE

Derren Francis wins 15m and 18m UK Nationals

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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!

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Note: This offer does not include the embroidered ties, soaring hats or winter hats.





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COVER STORY

Competing in his Ventus 2cxaj, Bicester GC's Derren Francis won both the 15m and 18m nationals. Derren is the first person to win two UK nationals in the same year since 2004. Turn to p6 for the full story. (Max Kirschner)

DEADLINES

Oct/Nov 2012

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

Dec 12/Jan 13

Articles, Letters, Club News: 8 Oct
Display advertisements: 22 Oct
Classifieds: 6 Nov

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› A solar-powered plane landed in Morocco on 6 July, 17 hours after taking off from Madrid, completing the second leg of a pioneering journey described as a rehearsal for a world tour in 2014. Solar Impulse pilot Bertrand Piccard began the 2,500km trip in Switzerland in May. The aircraft – the size of a jumbo jet, but the weight of an average family car – is powered by 12,000 solar cells turning four electrical motors. The Solar Impulse made history in July 2010 when it became the first manned solar plane to complete a 26-hour non-stop flight, proving the sun's energy was enough to keep it in the air, even at night.

› Dick Butler completed the maiden flight of his Open Class Concordia on 25 May. He will be representing the US in the Open Class in the Uvalde Worlds. The team behind the Concordia project includes Dick Butler, Gerhard Waibel and Dr Loek Boermans. The Concordia is the result of a vision to design an Open Class sailplane with maximum performance from a pure competition standpoint with no intent to go into serial production.

› A website intended to help pilots make informed field selection choices, supplementing the advice in the BGA training syllabus, can be found at www.fieldselection.co.uk/. Derby & Lancs GC have recreated the original website put together by Adrian Hatton showing photographs of 10 different crops, taken both from the air and in the field, at various stages of cultivation. Each crop is described – including its suitability for field landings – from early growth to harvesting time.

› There have been recent reports of farmers demanding release fees for gliders which have landed in fields. Pilots are reminded of the advice for dealing with such situations at www.gliding.co.uk/bgainfo/competitions/fieldlanding.htm

› In Sarah Kelman's article *Avoiding Airprox* (p30 June/July 12), she recommends listening to the Oxford Kidlington approach frequency on 125.32 when in the area. This frequency has since changed to 127.75. Pilots should always refer to the current chart and associated chart amendments for the latest information. Amendments can be accessed via the NATS/AIS website at www.ais.org.uk/ (follow the top menu link for VFR Charts).

› Congratulations to Russell Cheetham on winning the 18-metre Class (flying his JS1) at the 46th International Hahnweide gliding competition, Germany, in May.

› Schempp-Hirth handed over its 600th Ventus (2c type) on 20 April, to German pilot Martina Kluth.

Booker goes to Goodwood

BOOKER's marketing team was delighted to be invited to exhibit at the Aviation Show section of the prestigious Goodwood Festival of Speed, near Chichester, *writes Jane Moore*. The event, held at the end of June, attracts over 185,000 visitors from a wide area, including the counties around Booker.

We have staged a number of events in the past: it was our stand at AeroExpo at Wycombe Air Park which caught the eye of the Goodwood organisers. We believe that the best way to promote gliding and help the public understand our sport is to show them a glider, so we have previously rigged in some unlikely places, including Henley market square and the concourse

of the Windsor Royal Shopping Mall, as well as various county shows.

Over the years we have accumulated a variety of publicity materials, including some striking banners designed to show the wealth of opportunity and potential offered by gliding.

Our space at Goodwood included a stand in the exhibition building and a pitch for the Duo Discus. A small team drove down before the show opened to rig the Duo and set everything up. For the four days of the show, two members stayed locally to set up at 7am and close down at 8pm and crews came each day to help out.

We made sales and some very

promising leads, including interesting corporate group contacts, from which we hope to generate business in future.

Many visitors came from outside Booker's catchment area, so we recommended these to their nearest club. We hope that our efforts will help to raise the profile of gliding in general and bring in custom for other clubs as well as Booker.

Given our belief in the effectiveness of such events, we would like to hear from any clubs interested in discussing combining forces to put on joint events.

www.bookergliding.co.uk



Booker GC raised awareness of gliding, displaying a Duo Discus and striking publicity banners, at the Aviation Show section of the Goodwood Festival of Speed in June

DATES

NATIONALS, REGIONALS AND OTHERS

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

Saltby Open	Saltby	7-9/9/12
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BICESTER REGIONALS

Bicester	21-29/7/12
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MIDLAND REGIONALS

Hus Bos	4-12/8/12
---------	-----------

DUNSTABLE REGIONALS

Dunstable	18-26/8/12
-----------	------------

BIDFORD REGIONALS

Bidford	18-26/8/12
---------	------------

INTER-SERVICES REGIONALS

Wittering	18-26/8/12
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■ **BGA Club Management Conference, 17 November, 2012 at Warwick University**
■ **BGA Conference and AGM, 2 March, 2013 at the Belfry Hotel, Nottingham**



Receiving awards from the Royal Aero Club President, HRH Prince Andrew, are (left to right) Doug Jones, Diana King and David Masson (www.hereandnowphotography.com)

ROYAL RECOGNITION FOR DEDICATION AND SERVICE

DIANA KING was presented with the Royal Aero Club (RAeC) Silver Medal at the RAeC annual awards ceremony, held at the RAF Club in London in May.

Diana has given many years of service at both club and senior level in air sport. An active member of Midland Gliding Club, she is currently chairman of the BGA's Development Committee and is its representative on the CCPR (now the Sport and Recreation Alliance). From 2004 to 2009 Diana was General Secretary of the Royal Aero Club and she is the UK representative on the FAI Environmental Commission.

A RAeC Silver Medal was also awarded to David Corbett (posthumously). David was the former owner of Shobdon airfield and gave significant support to all the airfield users, particularly the gliding club.

He served on the executive committee of the LAA and on national committees promoting air sport and safety.

Doug Jones, of Bristol & Gloucestershire GC, was presented with a RAeC Diploma for more than 60 years of dedication and skilful service to gliding. He has held numerous roles at the gliding club and also served on the BGA Technical Committee from 1959 until 2011, specialising in wood and composite repairs. Doug became its chairman from 1985-1991. He eventually retired in 2011 due to failing eyesight.

David Masson, Lasham GC, received a RAeC Certificate of Merit. An experienced cross-country pilot, David produces a weather forecast in the summer months, which is distributed each evening by email,

with an update early the next morning. This uses his knowledge of local conditions to provide guidance on task settings. David has also been a leading proponent of Competition Enterprise, where pilots gain points for interesting and demanding cross-country flights.

Carr Withall, who has led the BGA's airspace team for nearly 20 years, was presented with the FAI Paul Tissandier Diploma at the awards ceremony. He has negotiated the protection of gliding interests in major changes of UK controlled airspace, and in the introduction of new technologies for airspace management.

Carr has actively supported several gliding clubs in negotiations about local airspace issues.



Carr Withall, who has many years of experience both as a commercial pilot and in glider flying, receives the FAI Paul Tissandier Diploma from HRH Prince Andrew

Aerobatics first for 13-year-old



Buckminster's Robbie Rizk makes history as the youngest person in the world to take part in a national aerobatics contest

THIRTEEN-year-old Robbie Rizk won the beginners class at the UK National Glider Aerobatic Contest, held at Buckminster in May, with a score of 82.6 per cent. He also gained the highest score in the competition for his positioning, finesse and accurately flown manoeuvres in a K-21.

Robbie is the youngest person in the world ever to take part in a national aerobatics contest and had to fly with a safety pilot because he is not yet old enough to fly solo.

"It was an incredible experience," said Robbie. "The training and flying after school has paid off. It was great fun to take part in the aerobatics competition. I met loads of nice people and, besides, I like it upside down!"

Robbie was introduced to gliding, aged 11, by his father, George, who is a pilot and instructor with Buckminster GC. One of Robbie's instructors commented: "He is a natural pilot and shows the flair and skill that is normally seen in much more experienced pilots. He is destined to go far and could well have future 'Red Arrows' potential."

Another Buckminster junior, 16-year-old Chris Bowden, also did extremely well at the same competition, coming fourth in the Sports Class.

Derren makes it a double

CONGRATULATIONS to Derren Francis (WIndrushers), winner of this year's 15m and 18m UK Nationals.

"It is great to feel that you are up amongst pilots who you have admired for such a long time," says Derren, who was competing in his Ventus 2cxaj. "My problem now is to make sure that I stay there!"

"As for the actual competitions; the 15m Class, with its terrible weather, was superbly run by the Lasham organisation and it is a credit to them that they made it an enjoyable experience. At least the task we did fly was a long, tactical day with a lot to think about.

"The 18m Class, held at Husbands Bosworth, is the class that I enjoy flying the most. These gliders have fantastic performance, but still maintain fabulous handling qualities.

"The most memorable part of the week for me, which I probably share with the rest of the field, was going through the start line at 4,500ft and being confronted by a downwind 45km glide to the only cumulus in the sky. It still amazes today we made it across –I'm glad I didn't have my 15m wingtips on that day!"

The last time that two UK Nationals have been won by the same person in

one year was in 2004, when Jez Hood won both the Standard and 18m UK Nationals. There have, however, been a number of cases of pilots winning Overseas Handicapped Nationals and a UK Nationals in the same year (including Russell Cheetham, Mike Young and Peter Harvey).

■ Derren Francis has recently taken over from John Marriott as the BGA Chief Tug Pilot. An experienced tug pilot, Derren is also a Single Engine Piston Class Rating Instructor, gliding instructor, cross-country pilot and, in his day job, he flies business jets.



Derren Francis (in F2) and David Watt during the one flying day of the 15m Nationals at Lasham (Max Kirschner)

Congratulations

THE weather has not been great for the UK Nationals to date! As we go to press, everything is being kept crossed at Gransden Lodge in the hope of decent weather for the Club Class Nationals (21-29 July).

Congratulations to nationals winners:

15m Nationals, Lasham

- 1 Derren Francis (Ventus 2cxaj)
- 2 David Watt (Ventus 2a)
- 3 Phil Jones (Ventus 2cxa)

Open Class Nationals, Lasham

- 1 Pete Harvey (Nimbus 4T)
- 2 Steve Jones (Nimbus 4T)
- 3 Kim Tipple (Nimbus 4T)

18m Nationals, Husbands Bosworth

- 1 Derren Francis (Ventus 2cxaj)
- 2 Russell Cheetham (JS1-B)
- 3 Andy Davis (JS1-B)

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Gliding heritage centre for the UK

AT LAST, a dream of many clubs and glider pilots in the UK is being fulfilled. Britain will soon have its own museum dedicated to our gliding history and sport. To be able to exhibit our glorious past, our remarkable present and the future; to display details of our clubs, our achievements, our World and National Champions and so many other vital and fascinating aspects of our sport will be a great boon.

To interest and hopefully introduce the largest and diverse members of the public, especially the young, to gliding will be our main aim – the future is even more important than the past.

In the next issue of *S&G* there will be an article giving all possible information and facts. For now, I ask you to look at our great website www.glidingheritage.org.uk

We welcome all ideas, suggestions and donations – it will be your museum!
**Wally Kahn – ‘just the fund-raiser’,
the Gliding Heritage Centre**

Memorabilia is sought for 50th

NORTHUMBRIA Gliding Club celebrates its 50th Anniversary of operations at Currock Hill this year. If any past members can offer any stories of gliding and other activities over the past 50 years or, better still, some photos to accompany such stories, we would love to hear from you. Our chairman, John Allan, is very keen to compile as much of the club's history as possible into an archive, since much of the history is not particularly well documented.

We would like to extend a warm invite to previous members, and anybody who has been associated with the club over the years, to attend our 50th celebrations over the weekend of 11-12 August 2012.

A ‘hangar dance’ on the Saturday night features a Ceilidh band and buffet. Tickets are £7.50, including food, and camping is free so bring a tent or a caravan with you and stay for the weekend. Proceeds will go towards the Great North Air Ambulance.

Anybody wishing to pass on any stories, or buy tickets for the Saturday evening 50th bash, please visit www.northumbriagliding-club.co.uk

Rob Rose, Northumbria GC

GOING BACK TO ITS ROOTS

I WOULD like to know the history of EoN-S-016 (pictured below), or to contact the pilot who flew this glider in the Olympics during the 1960s. It is still in a mint condition, with 232 flying hours and 196 launches in its log book.

I am in South Africa and bought this glider for my son. It had been standing in a hangar for the past 12 years. All I know is that it came from Zimbabwe (Rhodesia) and that the owner was called Smith. His son imported it into South Africa, but flew it only for a few hours.

Johan Denner, South Africa

Bruce Stephenson, S&G vintage gliding adviser and VGC Secretary, replies: From the records to date, EoN-S-016 appears not to have ever carried a BGA number or registration, so I can only assume that the glider was sold to either a club, or private owner in Rhodesia.

There is also a question mark regarding



EoN-S-015, and there is an assumption from some of the paperwork that I have been forwarded that maybe both of these gliders were exported to Rhodesia at the same time? (Certainly, and rather frustratingly, Norman Ellison's excellent book on UK glider production has question marks for both EoN-S-15/16.) I assume that you no longer have the original log books with the glider, as this should shed some light as to the original owners of the glider, and what dates they entered into Rhodesia.

As for your reference to the Olympics, this would not have been the case as gliding never featured in any Olympics after the war in any shape or form. It is more likely that the glider may have been flown at the World Gliding Championships? I have checked the results for South Cerney in England in 1965; there was only one 463 entered, which was flown by the Canadian P Mortensen. (This glider would have more almost certainly carried a BGA registration.)

I rather think that a glider with only 232 flying hours and 196 launches in its log book is a good buy in anyone's books, and is especially remarkable for a glider of that age. I am delighted that you have put her back where she belongs, in the air!

I am sure your son will have many an hour of enjoyable flying in her.

Singing the praises of jet sustainers

I WOULD like to compliment Afandi Darlington on his excellent article (*Jet or turbo?*, p18 June/July), which sings the praises of the jet sustainer. Having operated one in the UK for several months last year, during which time about 50 pilots flew it, I have no doubt that those ‘jet-pilots’ would agree with his conclusions. The reader could, however, easily be left thinking that this was something that was in development and only available from one manufacturer. I would like to mention that the HpH Shark SJ (jet sustainer) is already operating, with many customers in North America and throughout Europe – including the UK, where it is one of multiple Sharks operating on the G-Register.

Craig Lowrie (www.hphUK.co.uk)

Afandi Darlington responds: Craig is quite right to point out that other jet sustainers are currently flying and available, including the HPH Shark SJ and Schempp-Hirth's Ventus 2cxaj. I don't have details of their installation weights, but they are likely to be similar to those quoted in the article and so the conclusions reached will be broadly similar for all these new machines. Given the inherent benefits of the jet sustainer, I think it is likely that most new 15-18m designs will offer the system as an option in future.

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 6 August

SAILPLANE & GLIDING



Andy Davis
Competition flying



Andy Miller
SLMG



Howard Torode
Airworthiness



Derren Francis
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).

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IMPACT OF NEW EASA MEDICALS

It is imperative that everyone understands the issues before making the transition to EASA pilot licensing and medical requirements. BGA Chief Executive Pete Stratten explains

THIS article is the first in a series that aims to guide readers through the changes we can expect over the next few years as we transition from existing BGA requirements to EASA pilot licensing, medical and training requirements by April 2015.

The BGA is taking a managed approach to the three-year transition period and in doing so is, of course, working closely with clubs and pilots as well as the CAA. One of the objectives of this series is to emphasise how important it is that everyone involved understands the issues before making the transition.

In this issue, we intend to identify the impact on glider pilots brought about by the introduction of EASA medical requirements by April 2015. Depending on individual

circumstances, the subject is potentially complex. Fuller details, including FAQs, will be made available at www.gliding.co.uk/bgainfo/medical

Why is the medical requirement changing?

As described by the CAA's Dr Sally Evans in her article in S&G (p10, June/July 2012), European Commission regulations provide the detail, including the snappily titled 'Part MED', which contains the rules for pilot medical certification.

Under those rules, which apply to us from April 2015, all pilots who intend to fly an aircraft with an EASA Certificate of Airworthiness must hold an EASA licence and an EASA medical certificate appropriate to that licence held.

EASA licensing rules include two almost identical glider pilot licences:

- The 'Sailplane Pilot Licence' (SPL), which is designed to be used anywhere in the world and requires an EASA Class 1 or 2 medical certificate.
- The 'Light Aircraft Pilot Licence' (LAPL) for sailplanes, a European licence that requires as a minimum a LAPL medical certificate issued by a GP.

What will be the impact on glider pilots?

Those glider pilots who now fly using a JAA Class 1 or 2 medical certificate should, in due course, experience a seamless change to the EASA Class 1 or 2 medical certificate.

Those used to the GP-endorsed self-declaration medical will experience change. GPs who issue the LAPL medical certificate will be required to carry out a medical examination on initial issue for everyone and every two years for those aged over 50, described as:

- MED.B.095 Medical examination and/or assessment of applicants for Light Aircraft Pilot Licence (LAPL) medical certificates
(a) An applicant for an LAPL medical certificate shall be assessed based on aero-medical best practice.
(b) Special attention shall be given to the applicant's complete medical history.

JET A1

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(c) The initial assessment, all subsequent re-assessments after age 50 and assessments in cases where the medical history of the applicant is not available to the examiner, shall include at least the following:

- clinical examination;
- blood pressure;
- urine test;
- vision;
- hearing ability.

(d) After the initial assessment, subsequent re-assessments until age 50 shall include:

- an assessment of the LAPL holder's medical history; and
- the items under paragraph (c) as deemed necessary by the Aero Medical Centre, Aero Medical Examiner or General Medical Practitioner, in accordance with aero-medical best practice.

From the initial examination, until the age of 50, your NHS GP will be able to undertake an assessment based on your medical records and an examination will only be required on clinical indication.

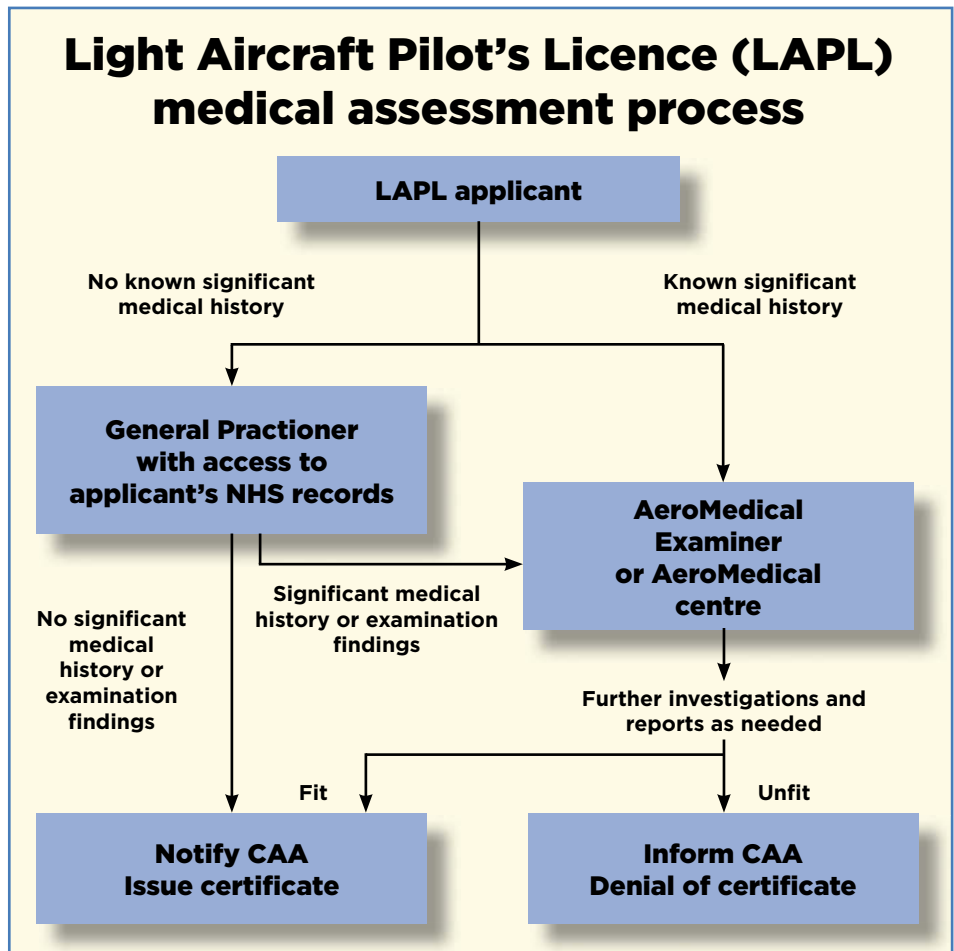
There are, of course, challenges which will need to be worked through before we fully understand the impact of the LAPL medical, including:

- GPs will be as new to the EASA requirements as we are.
- Some GPs will be nervous of being asked to certify "fitness to pilot" under the EASA requirements as opposed to certifying the absence of recorded DVLA disqualifying disease under the existing UK requirements.
- The expression 'aero-medical best practice' is a bit vague.
- The GP's fee for carrying out a LAPL medical will be determined individually by each GP. It's inevitable that a medical examination by a GP will result in a higher fee than would be the case for checking a medical record.

Do I need to do anything now?

No. The BGA advice at this stage to those who, under future EASA medical requirements intend to continue to use their GP, is:

- Don't be in a hurry to apply for a LAPL. There is no rush. The requirement to hold an EASA licence does not apply to glider pilots and non-commercial aeroplane pilots until April 2015. The BGA would not anticipate you transitioning to a LAPL, and therefore needing a LAPL medical certificate, until sometime in 2014.
- Meanwhile, continue to use the NPPL Medical standard required by the BGA, ie the



self-declaration with GP endorsement.

- When you next visit your GP, talk to him or her about the EASA requirements, but please ensure that you supply the guidance that will be available later this year on the CAA website at www.caa.co.uk/medical. The guidance will be written by an expert in language that GPs will relate to.
- If your GP is unhelpful, make sure you understand the GP's concerns and ask for the detail in writing. The BGA intends to develop a reporting system that will inform our efforts in supporting glider pilots as they and their GPs, as well as the BGA and the CAA, learn more about the EASA medical process ahead of April 2015.

Please keep an eye on the BGA website and S&G for further guidance over the coming months. This guidance will include advice for pilots who fly with limitations because of existing medical conditions, who will almost certainly need to see an Aero Medical Examiner rather than their GP for their first LAPL medical examination.

- In the Oct/Nov issue of S&G, we will describe the glider pilot licence transition process leading up to 2015.

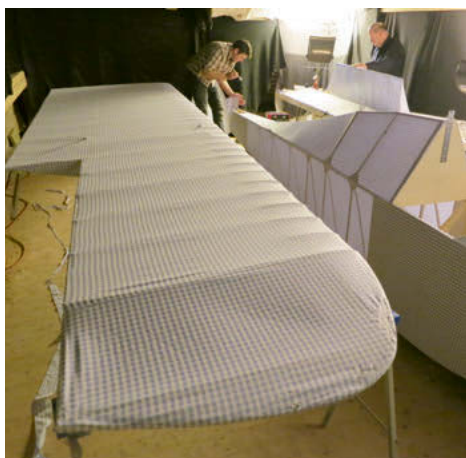
THERE ARE, OF COURSE, CHALLENGES WHICH WILL NEED TO BE WORKED THROUGH BEFORE WE FULLY UNDERSTAND THE IMPACT OF THE LAPL MEDICAL



Colditz Castle (above left), perched upon a cliff escarpment high above Colditz Town (spot the glider!). Patrick Willis (above right) with the full-scale model Colditz Cock on day three of construction in the roof of the castle (Tony Hoskins)

ESCAPING FROM

Tony Hoskins tells the behind-the-scenes story of building a replica glider in the original workshop space of Colditz Castle



The heated tent two days prior to launch, in an attempt to get the millet/dope/epoxy mess to set (Tony Hoskins)

IT'S not often that one is approached by a TV production company, even less often that they ask to test the untested! I received a phone call mid-August last year after Southdown GC had kindly recommended us to Windfall Productions. The caller's suggestion – build a Colditz Glider from original materials, in the roof of Colditz Castle, and then launch it by gravity fuelled bathtub to fly safely across the town to the original intended landing field. Very crazy, near impossible – they asked me to a meeting.

I'd not really dealt with a production company before. Although Windfall had originally produced the Colditz series in 2000 that featured a replica build of the Colditz Glider, the staff assigned to this project had not much knowledge of the aviation industry. I thought by showing the complexity of the inside of a T-38 they would get a rough idea of the scale of the task in hand. Unfortunately this backfired – production companies embrace problems; problems and complexity make a good documentary apparently! We were hired.

We had laid down some ground rules to make this logistical nightmare more possible. If it was to be built of original materials and the one and only time it would fly would be off the roof above the town, it was only ever going to be radio controlled. This brought

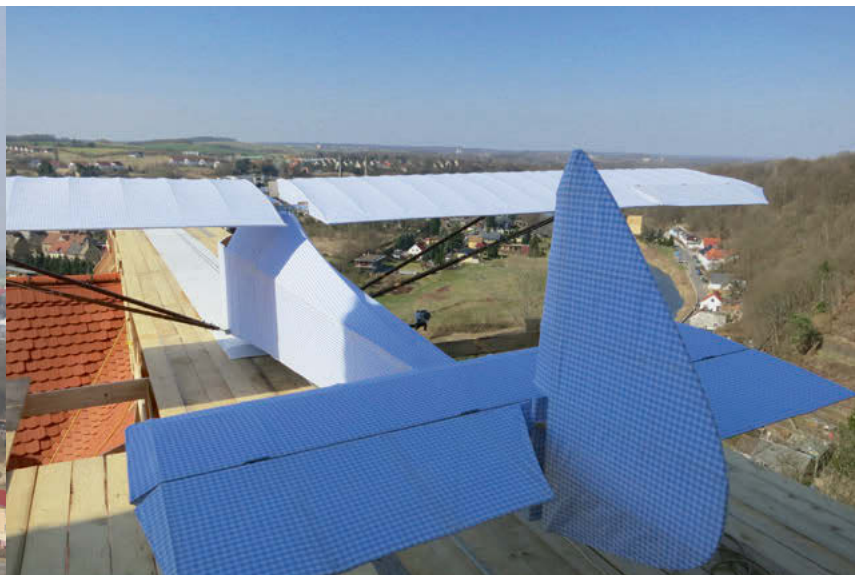
with it a few issues, mainly weight related, but also authority involvement was going to be a must from the outset.

Refreshingly the LBA (German CAA), DACEV (Deutsche Aero Club e.V) and local Saxony Authorities were really down to earth and open to our suggestions. Essentially, as long as we didn't exceed a MAUW of 150kg, didn't climb the model above launch height, and didn't kill anyone – we could go for it and have fun!

Hugh Hunt (of previous Dambusters documentary remake) was to be the prime presenter of the programme, but knowing little of gliding or indeed the story behind Colditz, he was tasked purely with the launch mechanism. South East Aircraft Services (SEAS) were to build the glider as a separate team of four.

In order to raise awareness, this gave us the perfect opportunity for some gliding involvement – off to Hugh's local club at Gransden in February for some winning! A big thank you to everyone at Cambridge who gave their time and their facilities to our benefit – particularly the duty team and the extra tuggies, who waited around all day whilst we winched the life out of a K-21 before taking a high tow for some air-to-air footage.

The production company had given us strict guidelines as to construction of



(Above left): Tony Hoskins, carpenter Mike Keogh and Jess Nyahoe survey the end of the launch ramp between showers. The ramp was constructed over a period of four days and was further hampered by the variable pitch and direction of the roofline. (Above right): Launching imminent (Ben Watkins)

COLDITZ

the glider, mainly we were not to mass produce sections prior to travel to Germany. The best we could negotiate was to take a 300-piece pre-designed CNC kit and spend the allocated time in the attic workshop assembling and covering the glider – still quite a task.

Original drawings were obtained from the Imperial War Museum and Southdown's Craig Lowrie graciously offered to plot these into a CAD programme. First thing we learned – rough original drawings are very rough, and don't really work if you follow them exactly. Secondly, the drawings had a lot of essential information missing!

By the end of February, we had it all pretty well worked out. We contracted a local speaker manufacturer to machine the kit, whilst I sourced the spar material from a local timber merchants. The POWs used wardrobe, bed and castle fixings when building the original, so it was off to the local home hardware store to obtain masses of nuts, bolts, door hinges, and steel strap material.

Making the glider radio controlled aided us with project insurance, and negotiated around health and safety restrictions, but trying to convince the brokers that this was a good idea was not easy. The budget didn't run to a stabilising system of any kind; human error or structural failure of the light structure was a major concern for all. In stepped Malcolm

Blows, a glider pilot and massive model enthusiast, who kindly acted as our system adviser in the early stages. The combined efforts of Malcolm and his flying friend Patrick Willis produced a comprehensive frequency locked control system, using seven of the biggest servos I have ever come across and, after lots of bench testing, we had a reliable control system completely immune from external influences (or so we thought!).

March 2012 was upon us quicker than we had planned for. A busy winter glider maintenance period had us all working flat out on our regular customer airframes. We went through several team changes to best meet our commitments both in the UK and in Germany, but with a week to go, it was set. Patrick Willis was to join us as pilot for the flight due to Malcolm's prior commitment to flying one of Boeing's finest for a living. Jess Nyahoe, the most recent addition to my glider maintenance team, together with Ben Watkins (a long-time friend and deeply involved in aviation, both professionally and socially) were, together with myself, the main build team.

I am profoundly thankful to Darren, Craig and Claire, who stayed in the UK to look

**FIRST THING
WE LEARNED
– ROUGH
ORIGINAL
DRAWINGS ARE
VERY ROUGH,
AND DON'T
REALLY WORK
IF YOU FOLLOW
THEM EXACTLY**



Jim Fenn and Waldo Etherington abseil from the roof to support the fuselage as it makes its way out of the attic workshop. A system of ropes was slung from all sides of the courtyard, but the method was untested until the day. In WWII, prisoners were to have knocked down the wall above the launch ramp, but, being historically significant, our team was unable to replicate this part of the escape! (Keith Rodgers)

LAUNCHING BY BATHTUB WAS ALWAYS GOING TO WORK AND WE HAD THE GLIDE PERFORMANCE TO REACH THE FIELD



The jubilant team post launch (l-r): Patrick Willis, Ben Watkins, Uli Pflanz (translator), Tony Hoskins, Jess Nyahoe, Waldo Etherington (rope access), Jim Fenn (rope access) and Mike Keogh (carpenter)



Tony Hoskins has been gliding since 1995 and holds a Full FAI Gold Certificate with a Diamond. A lapsed BGA instructor and current tug pilot, Tony has about 1,000 flying hours, including gliding and light single engine piston. Tony is owner and chief engineer of South East Aircraft Services. When not repairing or maintaining gliders, Tony is 50 per cent of the HpH UK agency, promoting the Shark jet and self-launch 18m gliders, and flies from Southdown

✂ after our customers at home.

Colditz Castle is set deep in Eastern Germany between Leipzig and Dresden. Normally in March they would be enduring sub zero temperatures and deep snow, but this winter had so far proven milder than expected, a fact which was to help us greatly.

Essentially, the build was actually very straightforward. We were using tacks and glue like the prisoners, but, as time was of the essence, our glue was a five-minute expanding epoxy. Unfortunately, this required temperatures above 10 degrees to set properly and, as Colditz Castle is mostly derelict with nothing in the way of heating or power, these were temperatures we were unable to enjoy. A tight filming schedule, and impromptu additions to this didn't help, and our eight days allocated to the build was really less than six that we actually got to spend constructively.

The production team were really keen on us using millet to dope the airframe. Although we had used modern fabric adhesive

to glue the bedsheet to the structure, they were completely against us using modern dopes to seal the fabric. One late night test following a day of "cooking" decided our fate after a successful test of the millet material.

A small window of weather was appearing on the horizon, but a sudden major cold snap greatly hindered the progress with the millet. It too readily absorbed moisture from the air and slackened. Frustratingly, we could see our project looming close to impending failure.

Our solution was to build a small tented area to the same dimensions of the original workshop a few feet above our heads. Stacked out with three-phase heaters, we could just get it warm enough to properly cure our glues and set the millet.

Launch morning started with a Sam meet in the POW courtyard. We had cut the roof rafters the evening before and, with half my team on the launch runway and the rest of us in the attic, it took a little under two hours to pass all the pieces from our workshop, around the corner to the launch runway.

Rigging a 10-metre glider for only the second time on a two-metre wide platform, six storeys up a building that is perched on a cliff edge above a river concentrates the mind somewhat. Still we got the glider together and the wing supports in just before the thermals kicked off and the breeze picked up

from the south.

Radio link tested, and leaving Ben on the roof, the rest of us together with the production team made our way through the thousands of people who had come from all over Germany to watch our antics. It was obvious from the turnout that support for this event was huge, with a great international press turnout.

A great misconception of mine was that so much of TV is staged to add last-minute drama – this was certainly not the case for us! Genuinely, our last-minute radio link problems, caused by the earlier application of tin plate and lard to the runway by the carpentry team, was a complete oversight until launch day.

Also, that morning, an extra steel mechanism had been built to actuate the hook release operation, which was installed after we had left the roof for the landing field. Unfortunately, without our guidance, this was placed directly under the rear of the aircraft so when the acceleration of launch occurred and the tail slammed down, this steel lump tore out the lower portion of all the rear fuselage frames, leading to the significant twisting of the tailfeathers observed in the video.

The glider itself, considering the damage it incurred in the launch, flew rather well, better on glide than we expected! Unfortunately with a field now so significantly smaller than it was in the war, the landing area available was insufficient and, to avoid a messy arrival in somebody's shed in front of the world's press, we took the decision to pinpoint its arrival somewhat dramatically.

So would it have worked in the war? I think both our glider and the previous replica proved the machine would fly. Launching by bathtub (filled with concrete and falling along the outer wall to the ground, accelerating the aircraft to 50km/h) was always going to work and we had the glide performance to reach the field and could have pulled off a successful landing had it been longer. I think though, with the constraints of the construction of the launch runway, together with the obvious implications of doing it at night, I doubt the POW would have had sufficient time to escape unnoticed by the Germans.

However, what was highlighted to me by living in the castle for two weeks was that these chaps were most certainly keen on escaping. These weren't dreams, but a genuine attempt at leaving captivity, and for that they will always have my greatest respect.

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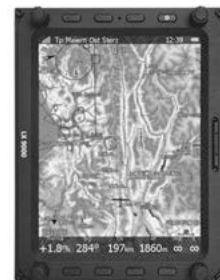


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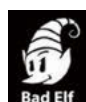


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1

AN EXPEDITION OF SURPRISES

Jean-Marie Clement reports on an eventful Patagonia season



2

Electric activity and (main pic) the cloud during the eruption of the Chilean volcano Puyehue-Cordon del Caulle on 4 June, 2011

PATAGONIA 2011/12 was a season under the sign of adversity from both natural and meteorological phenomena, aggravated by the lack of collaboration by some air traffic controllers and the increasing appetite of the customs officers in the port of Buenos Aires.

The volcano Puyehue

The first natural, and certainly the most meaningful, phenomenon was the eruption of the Chilean volcano Puyehue-Cordon del Caulle, situated 100km NW of Bariloche, on 4 June, 2011. Photos 1 and 2, taken about 30km away from the crater, give an idea of the size of the cataclysm. The immediate consequence for Bariloche was a solid rain that covered the city and the lake with 12 inches of sand and pumice stone, because,

unfortunately, that day the wind was blowing right on the axis of the volcano (310°).

After almost 4,000 people had been evacuated, normal life stopped completely for several weeks along hundreds of kilometres towards the east. The majority of wildlife died and thousands of bovines and sheep had to be euthanized because they were deprived of food and unable to eat the fodder that the farmers brought to them, because, never having seen it before, they did not know what it was!

Some days after the explosion, the volcano started spitting very fine, impalpable ash (as light as icing sugar) sowing this thick, deadly powder along its plume that turned according to the will of the wind and falling to earth along a cone of 90° angle having its bisector oriented precisely W-E and whose edges were,

unfortunately, the airports of Bariloche and San Martin de Los Andes. The consequence was the inactivity of one or the other, and the impossibility of flying below 3,000m along the 100km that separates these two airports.

The city of Bariloche remained paralyzed for more than a week: the time for the shovels to clean the streets (photo 3). The hangar stayed safe, on the one hand because of its shape and, on the other, thanks to the fast intervention of club members while taking big risks (photo 4). The runway remained unusable for four months: the time for rain and snow to make the dust penetrate the soil and for the wind to displace the rest eastward up to Buenos Aires (1,600km), where the airports had to close for several days, like those of South Africa, Australia and New Zealand. Bariloche's international airport remained closed from 4 June and only officially reopened on 20 December, while taking advantage of this forced stop to change the asphalt of the runway and add a water cleaning system in order to wash away the ash deposited on the asphalt.

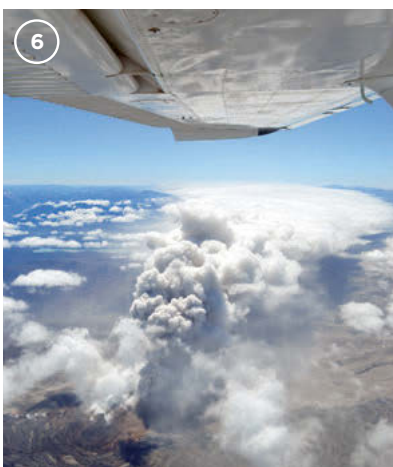
In fact, commercial flights would only recommence at the end of January, and again with numerous interruptions each time the plume passed above the city. For the record, an airline jet remained trapped for several months on the tarmac. The pilot had received clearance to take off, but the controller did not realise that the cloud that was arriving over the city and the lake was, actually, a cloud of sand and ash, forcing the pilot to abort the take-off during the initial roll out. The controller had not been informed about the eruption of the volcano!

From the point of view of the ground handling around the parking and club runway, the situation was not brilliant as the whole area of the gliding club was completely protected from the wind, preventing it from blowing the five inches of ash away towards Buenos Aires! It was, therefore, necessary to live under these hard conditions, feet in the ash and, often, wearing a face mask; forced to go straight under the shower every day when back home (photo 5).

Of course, you will say: "But why the hell did you go there, knowing the situation?". After long reflection, and consultations with the German team, our decision to go was based on the facts that no eruption of the neighbouring volcanoes (Llaima and Chaiten in 2008) had lasted more than three months and that the area of influence of the plume had completely spared the neighbouring



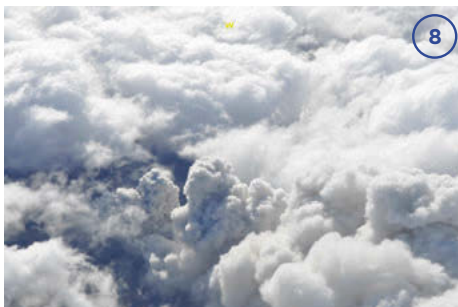
(Above) Bariloche main street (Mitre) and (right) cleaning the hangar
(Below) Under the ash, waiting for better times

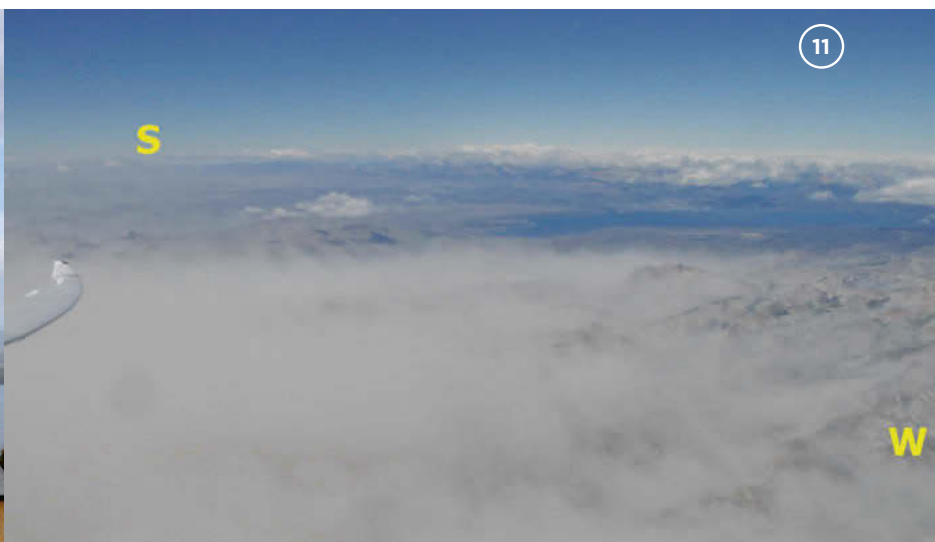


(Above) The plume with clear sky, January 2012 (left); primary ash embedded in the cloud layer, November 2011



(Below) In flight at 14,500ft above the erupting crater (left); Rio Caleufu covered with ash





INTERNET LINKS:

■ Special site prepared by a club pilot, containing all the useful links: www.inglaner.com/volcan_puyehue.htm

■ Animation covering 12 days of the eruption from 4-16 June 2011: http://upload.wikimedia.org/wikipedia/commons/d/d3/Two_Week_Movie_of_Chilean_Volcanic_Eruption_xo.ogv

■ Animation of the eruption from 13 June 2011: <http://www.youtube.com/watch?v=1620KyV2jsg>

■ Animation of the eruption from 6 January, 2012 (HD): <http://vimeo.com/36261528>

■ More photos: www.topfly.aero

✂ airports of (B) El Maiten (100km south), (C) Esquel (200km south), (D) Zapala (250km north), so we could have moved the camp there if necessary. Actually, none of the plans B, C or D could be applied. For (B), the runway of El Maiten was too soft to allow the Nimbus to take off with two pilots, which forced me to abandon my passenger on the ground to return by bus, in his flight suit designed for -30°C but with +25° on the ground and not a single penny in his pocket!

For (C), Esquel turned out to be practically QGO because the local ATC suddenly passed from one airplane a week to four a day (partially replacing Bariloche). So big panic, to the point that the Swiss, Jean-Marc Perrin (DG -800) and the US Perlan Project team (DG-1000) had to abandon this solution after a few days, because they had to take off before the airport opened and land after it closed, while prohibited from flying in half of the TMA – the good one, where the wave stays.

The plan (D), moving to Zapala, could never be applied because of the abnormally south position of the Pacific anticyclone, so that the meteorological conditions were never favourable for more than one day at this latitude, thus eliminating any interest for a move that would mean losing two days and a lot of money. On the contrary, it would have been wiser to move the camp at least 300km south, which proved impossible because of the absence of infrastructures and logistics compatible with

the transportation of one container and the operating contingencies of the Nimbus 4DM, unable to taxi with its sole engine. Jean-Marc Perrin, coming from Switzerland with his own car, trailer and the DG-800 in 15m, could therefore take advantage of these precarious runways and thus log flights between 1,500 and 2,000km, allowing him to win the OLC 2011.

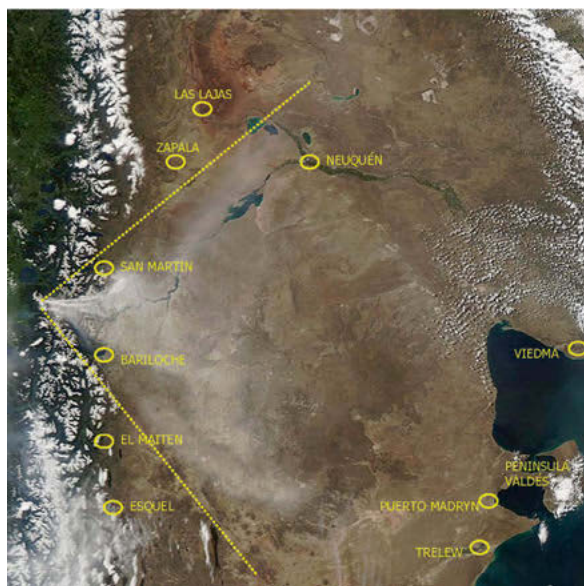
Gliding and volcanic ash

To all things misfortune is good, it is said. If ash is actually a poison for the engines and prevents all take-offs, the situation changes when the motor is put back.

Once in flight, we discovered two types of volcanic ash. Primary ash is the fresh ash leaving the crater and materialised in the plume, isolated and easily visible in a clear sky (photos 6 of January 2012), but hard to identify when absorbed into a cloud layer (photos 7 and 8 of end 2011). Its extent perpendicular to the axis of the plume is quite limited – about 10km at a distance of 100km away from the volcano – but its density and toxicity are very high. Better to stay home, wearing the mask if required to go out.

The photo on the left shows the position of the plume of primary ash on 29 January, 2012. When the wind turns quickly, the ash front penetrates into the air mass like a cold front, see photo 10. Luckily, we have never been forced to fly under these conditions where the visibility is only a few tens of meters.

The secondary ash is the consequence of wind erosion and lifting of the primary ash deposited on to the ground by the plume, carried away towards the east, day after day. The photo on the left shows the extent of the damaged zone, a triangle whose leg is more than 600km long. Photo 9 shows the total



Plume and affected area on 29 January, 2012



desertification of the territory (we are flying abeam Caleufu, the wing pointing east, the territory visible on the photo is about 80 x 80km), and also the intensification of the density of ash in suspension while going eastward.

Photo 11, taken 50km north of Bariloche at 6,700m and looking south towards the lake and the city, shows the position of the wind erosion ash front; the mountains located to the west appearing clean whereas everything that is downwind of the front is totally unflyable, at least with an engine. We had twice been forced to fly down home while crossing the secondary ash cloud. The top of this cloud doesn't exceed 3,000m and the visibility is around a few hundred meters, in all directions. Considering the absence of icing risk, the presence of three redundant GPS navigation systems and of two gyroscopes supplied by three independent electric circuits, the IMC descent didn't pose any problem, except that the time it took to come down from 3,000m in this mash seemed to me an eternity that will not quickly fade from my memory.

But not everything has to be thrown away: the ash lifted by the wind are so light that they gorgeously materialised the hydraulic jumps and the classic rebounds. Very useful at the start, allowing us to easily identify the heart of the lift! Photo 12, taken at 3,000m and 10km north of the airfield looking north, shows the perfect materialisation of a small hydraulic jump, with the presence of Kelvin Helmholtz rolls, while the particles of air and ash were falling at a super critical speed. This results in a speed higher than the average speed of the surrounding air mass, consisting of a practically vertical rise of the particles from the ground until the altitude at which

the speed becomes, once again, equal to that of the surrounding air mass – in this case, around 3,500m.

One can observe that, about 50km north, this system gives way to a classic, sinusoidal, rebound wave system without Kelvin Helmholtz rolls. Photo 13, looking eastward, shows the materialisation of the lifted ash trapped in a magnificent hydraulic jump located downwind, right in the middle of the Pampa about 50km away from the mountains. This photo shows three important features of the hydraulic jump: the presence of rolls aligned with the axis of the wind ending precisely at the front; a unique, practically vertical front, in which the particles of air and ash rise to the altitude of the laminar layer; and a high altitude cloud having a leading edge located into wind with respect to the ground line of the front (the shadow can be seen). In this case, it can also be observed that the ash does not pass into the laminar layer and remains caught between the ground and about 3,000m. A disaster for power planes, light or commercial aviation.

Photo 14, taken at 5,000m and 50km north of the airfield, looking north-east, shows the total absence of exchange between the two air masses and also the vertical amplitude of the sinusoidal displacement of an elementary particle, which is in the order of only 200 to 300m. This characteristic represents the fundamental difference between thermal and wave lift. In the first case, each elementary particle travels the whole distance from the ground to the cloud, while, in the

Above left to right: Front ash arriving from NW; wind ash in movement; hydraulic jump materialised by the ash; hydraulic jump materialised on the pampa

Below: Materialisation of the rebounds by the ash



THE TIME IT TOOK TO COME DOWN FROM 3,000M IN THIS MASH SEEMED TO ME AN ETERNITY THAT WILL NOT QUICKLY FADE FROM MY MEMORY

FLYING DEEP INSIDE THE ANDES OFFERS AN UNFORGETTABLE SPECTACLE THAT REPLACES WITH GREAT PLEASURE ANY SPEED OR DISTANCE RECORDS

✎ second case, it travels vertically only a few hundred metres and the movement is transmitted from one particle to another, similar to the game of colliding pendula. It is therefore necessary to forget the classic diagram that can be found in the best books, in which one sees a sinusoidal movement of the fluid lines having an amplitude of the same order of magnitude as that of the mountain, whereas, the actual slant of the ascending and downward fluid lines is only a few degrees, hardly visible on a drawing at scale 1/1.

In conclusion, whatever the wave mode, no air particle is transferred from the turbulent layer to the laminar layer, which was always completely devoid of dust.

A capricious meteo

We therefore made “bad luck, good heart” (the best of a bad job); the ash was not the main thing that spoiled the season, the weather conditions did. Indeed, the direction of the “bad” wind, the one that made the plume pass above our heads, was about 310° orientation too far north to give good waves, because the subtropical air masses are too warm and humid and, in general, anticyclonic.

It is well known that it is not so much the speed of the wind that defines the intensity of a wave system, but more its temperature, temperature gradient and density (so, the colder, more stable and drier, the more powerful the wave).

Then, when the wind direction turned below 280°, we were delighted to regain the legendary purity of the Patagonian air and its fabulous waves, to a degree where, taken

by the rage to fly at any cost and considering the particular conditions we were facing, we learned to fly with south wind, therefore parallel to the main line of the Andes. This technique is the same as we apply in the Alps, flying up and down from rebound to rebound, from peak to peak (positive wave), from lake to lake (negative wave). The only difference was that we had no landable field within a radius of 100km, so “goodbye high speeds”!

However, flying deep inside the Andes offers an unforgettable spectacle that replaces with great pleasure any speed or distance records. Figure 19 shows the situation on 11 January, where the wind at altitude blew 30 to 40kt full south, while it was, as usual, 20kt/300° on the ground. A rare situation but no less interesting.

These anomalies of pressure and temperature have been reported in figure 20, where we see the temperature at 6,000m parallel with the QNH at the take-off time. The first observation is that the temperature has always been above the standard (-24°C). The average is even 10°C above the standard and it is my opinion that this is the most meaningful phenomenon, since, 10 years ago, it was around the standard. A warm-up of 10°C in altitude is a real atmospheric cataclysm, whose consequences are completely unknown and unpredictable, this phenomenon being apparently ignored by the meteorologists and climatologists who keep their eyes on their thermometers on the ground or on the remaining polar ice! One more reason, in my humble opinion, for reducing the impact of human activities on global warming and an interesting subject for a debate about “environmentalism” and anthropo-centrism!”

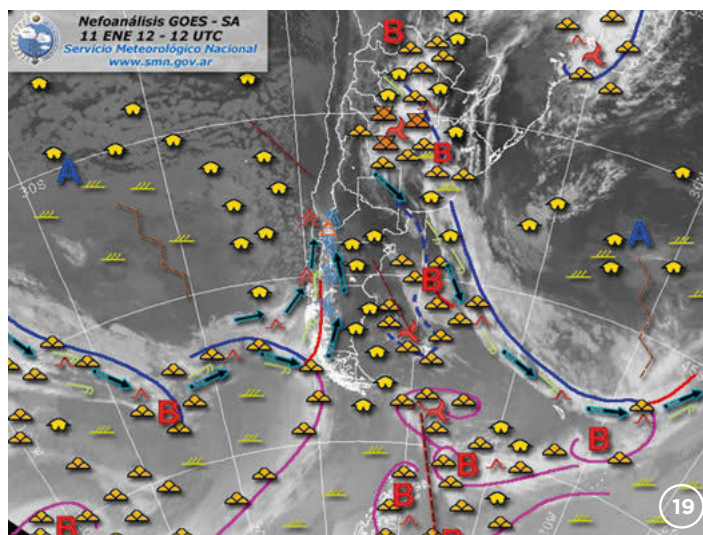
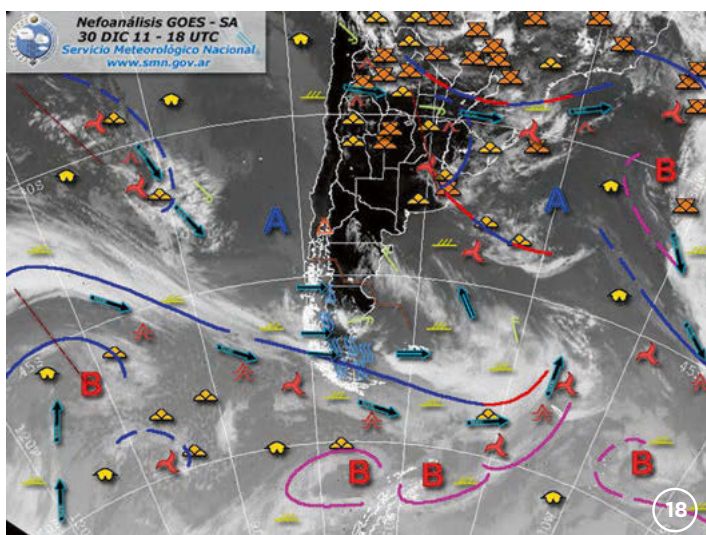
A glance on the curve of the QNH corroborates the moving down of the



(Above) Looking for somewhere to put the wings down.

(Below) Storage of the wings under the flying containers (left); the dog will sniff them all





anticyclone 1,000km southbound, or isn't it rather the opposite? One could also say that the temperature increase might only be the consequence of the pressure centres shifting. Messrs meteorologists, you have the chair, I remain at your disposal to start the debate.

Consequently, the gliding activity has been the lowest of these past 10 years, with only 160 hours and 30 flying days out of 65 available days. The situation deteriorated continuously from mid-November, with periods of up to nine consecutive non-flyable days in December, essentially for lack of wind due to the positions and the strength of the anticyclones. The few thermal days were hard to fly because of the ash, which was put back in circulation by the convection. And since the two nearest emergency strips to the north and south (respectively 80km and 100km) were unusable for take-off, no one wanted to take the risk of derigging the Nimbus in the ash!

Figure 18 shows the situation on 30 December after seven days without a breath of wind – very nice for swimming in a mirror lake! The Pacific high pressure centre is simply 1,000km too south and the one on the Atlantic took the place of the usual low-pressure centre that is the engine of the system – the one that “pulls” the flow and keeps the jet-streams blowing. The situation in southern Patagonia was locally very good between 500km and 1,000km south from Bariloche; hopeless for us, but so good for Jean-Marc.

The via crucis of the customs

Considering the very low number of European gliders (only four), we agreed to send only one container, using that of the Germans, whose coordinator was Diether Memmert. At the beginning, I underestimated the cost of two

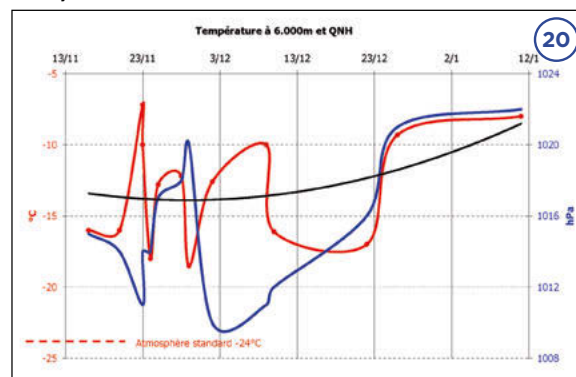
out and return trips from southern Europe to Osnabrück (near Hamburg) with trailer, ie 5,000km and eight travelling days. It was necessary to dispense 3,000 euros in tips at all levels of the bureaucracy just to be able to leave the port within a reasonable time; days rather than weeks!

The return was no less delirious: at the end of two weeks of endless discussions between our agent and the customs – while Diether had already returned to Germany – the “narcos” required us, without any possibility of negotiation, to fully empty the container, setting all pieces on the ground in the port. A total catastrophe. Diether and I had to return to Buenos Aires, hire some dockers and organise the removal of four fuselages, 14 wings and about 50 bags and cases. These were laid on melting asphalt under the sun of a torrid summer, slaloming with our wings between mad trucks as we did our best to urgently leave this hell (photo 15), and praying to God that the containers that passed continuously over our heads remained firmly hung (photo 16). A Kafkaesque delirium that cost us more than another 4,000 euros, just for allowing an unhappy dog to put her nose on absolutely all the pieces (photo 17).

And to reach the peak of absurdity, they required us to check the container through the scanner after the control by the dogs. The decision is taken: never again! We are therefore working in search of alternative solutions, while hoping that the World Gliding Championship in Argentina next January can bring some improvement to the customs situation.

(Above) Nefo of 30 December, 2011 (left) and of 11 January, 2012

(Below) Evolution of the temperature at 20,000ft and the QNH at take-off



Jean-Marie Clement's first flight was at 14 in 1959. A national team member in 1963, he was CFI in 1964, before a professional pause working in Turin. After a first 1,000km in wave in 1982, he's applied an engineering mind to create and divulge an almost unique understanding of wave and dynamic flight. Jean-Marie was European champion in 1989, has 26 national and six world records, and 6,000+ hours



NO NEED TO RIG

Sales of advanced rental in the 18-glider hangar at Parham helped to secure funding for the club's project

Better security and avoiding the need to rig were two good reasons for Southdown's new 18-glider hangar. Craig Lowrie describes how the club achieved its goal of a cost-effective solution

WITH a desire to accommodate the need for members to avoid rigging and to provide better security following vandalism of gliders left rigged on the airfield, I initiated a project to build a large purpose-built hangar at Parham on previously unused land, which we acquired as part of the site purchase in 2009.

The concept of this design allowed any glider to be removed without moving any other glider and called upon the learning at both Portmoak and Saltby. The goal was to produce a cost-effective solution in a structure that could accommodate a combination of 18 club and syndicate gliders, ranging from 15m, 18m, 20m two-seaters and also motorgliders. Even an ASH25 has a slot in the hangar.

Funding such a project was a challenge, as we were keen for the club to retain ownership of the structure. In the end we secured most of the funding through the sale of advanced rental, finally settling on 16 years for £9,500 for each slot. Members were allowed the right to freely trade their residual pre-paid rental.

Planning costs for such a structure were not straightforward and I spent a large amount of time entertaining local council officials at the club and presenting the club and its goals. Convincing them of the need for the hangar was always a peripheral discussion, paving the way for smooth approval, but with a no-guarantee planning cost of about £7,000.

At Parham we didn't have any suitably flat areas so had to "cut and fill" a gradually sloping field, requiring huge amounts of soil to be moved. The disturbance of the land where the aprons were to be was to come back and bite us later, despite investing in a number of trial holes to confirm land quality and drainage properties.

After one false start, we eventually found a contractor that could manage the project and was very close to our project cost target. Work began fairly quickly and it was not long before the building appeared.

Being unable to afford to galvanise the structure, a number of members came forward and painted the already primed structure during construction and before cladding.

The hangar has about 40 doors, which

run in a track system and can only be set once the building levels have been measured and adjusted. At this critical point, the heavens opened and the rain set in, making it impossible for the door track to be laid. This cost us about one month and was to have implications later.

Once the door tracks were set, the huge number of doors



Southdown's hangar takes shape

arrived and we set about painting them before the contractor clad and fitted them into the tracks, leaving a building that was largely complete.

The heavy rain identified some unexpected problems, however. Despite our airfield normally draining well, the new apron areas didn't seem to drain well at all, with pools of water lying long after rain had passed. This was made worse by the roof dumping its water on the apron areas on both sides of the building.

Identifying this problem early, whilst the building was still in construction, we decided to take swift action and install a drainage network on the south side and also to fit guttering and connect this into the same network. Whilst this was the right thing to do, it delayed the work to lay the final grass seed on the apron areas. With an unseasonably cool autumn, the grass didn't get hold sufficiently so we decided to delay occupation until the spring.

In preparation for occupation, it was still clear that the grass aprons suffered badly in the wettest April for 100 years, and we took the bold step of commercially installing roadways from each slot and also parallel to the building on both sides meaning that

we could guarantee all-year-round and all-weather operation of the hangar facility.

So, the hangar is finally up and running less than a year after construction began. Without the apron issues, this could have occurred in more like six months. Already we have seen a number of gliders flying on days when they otherwise would have not, if they had been required to rig.

The total project cost was under £220,000 and would have been below £200,000 without all the apron issues. Other clubs tell us that this was great value for a contractor build.

Being club chairman throughout the project and also chairman of the hangar subcommittee was a huge advantage as it allowed us to make decisions very quickly. I have to acknowledge the great efforts of my subcommittee, comprising George Baxter, Tom Beck and Jim Heath, without whom the project would have never happened.

■ Vale of the White Horse Gliding Club will be reporting on the construction of its polytunnel hangar in a future issue.

**WE HAVE
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WHEN THEY
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Members painted the already primed structure during construction and before cladding



Anyone interested or willing to help should contact us on SOAR@bicestergliding.com or phone Bob King on 07715748805

Bicester Airfield for sale

The former RAF Bicester has now been put up for sale by the Ministry of Defence

Bicester Gliding Centre has a very keen interest in maintaining gliding at one of the best sites in the country

We are now looking for financial assistance from within the aviation community to put us in place to make a bid for the site

EVOLUTION OF A REVELATION

Andy Davis announces a 21-metre development of Jonker Sailplanes' JS1, about to make its debut at the Worlds in Uvalde

TO COINCIDE with the debut of the first four examples in the Open Class at the forthcoming World Gliding Championships at Uvalde, Jonker Sailplanes has released details of the 21-metre wingspan development of its 18-metre Class sailplane, the JS1 Revelation.

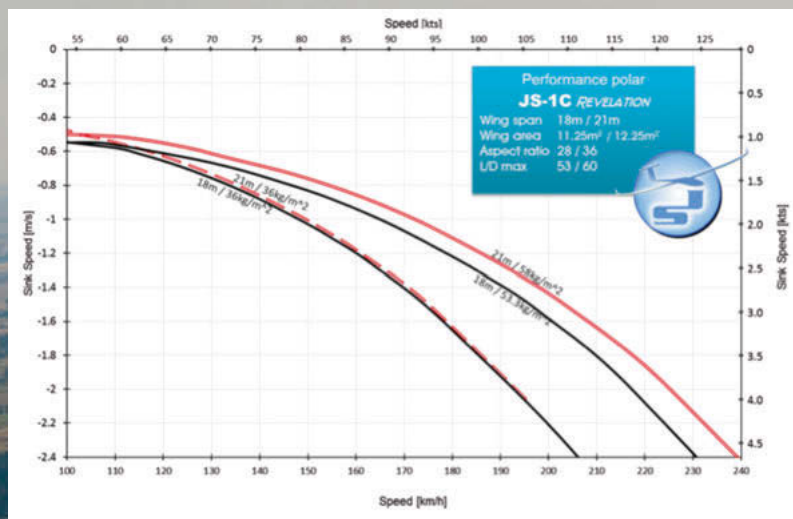
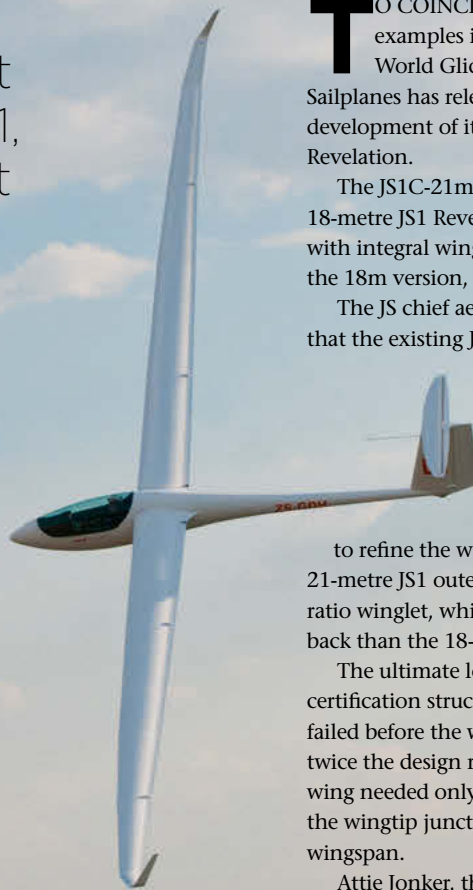
The JS1C-21m is the stretch option development of the 18-metre JS1 Revelation. Optional three-metre outer panels with integral winglet replace the 1.5-metre outer panels of the 18m version, increasing the wingspan to 21 metres.

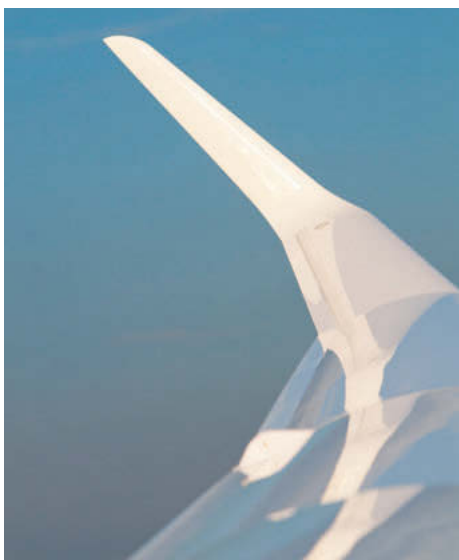
The JS chief aerodynamicist Johan Bosman – recognising that the existing JS1 wing planform, originally optimised for 18 metres, is also well suited to a longer wingspan – carried out design studies, which showed potential for very high performance and good handling at 21 metres. He used the opportunity offered by the 21-metre aerodynamic study

to refine the winglet design and the resulting cranked 21-metre JS1 outer wing panel sports a striking high aspect ratio winglet, which is both taller and more steeply raked back than the 18-metre winglet.

The ultimate load test carried out on the JS1 wing during certification structural testing, in which the test rig itself failed before the wing at a demonstrated load factor of twice the design requirement, proved that the JS1 inner wing needed only minor structural reinforcement towards the wingtip junction to accommodate the increase of wingspan.

Attie Jonker, the JS chief engineer, redesigned the outer wing junction to accommodate the extra loads from the longer outer wing panels. This has resulted in a longer



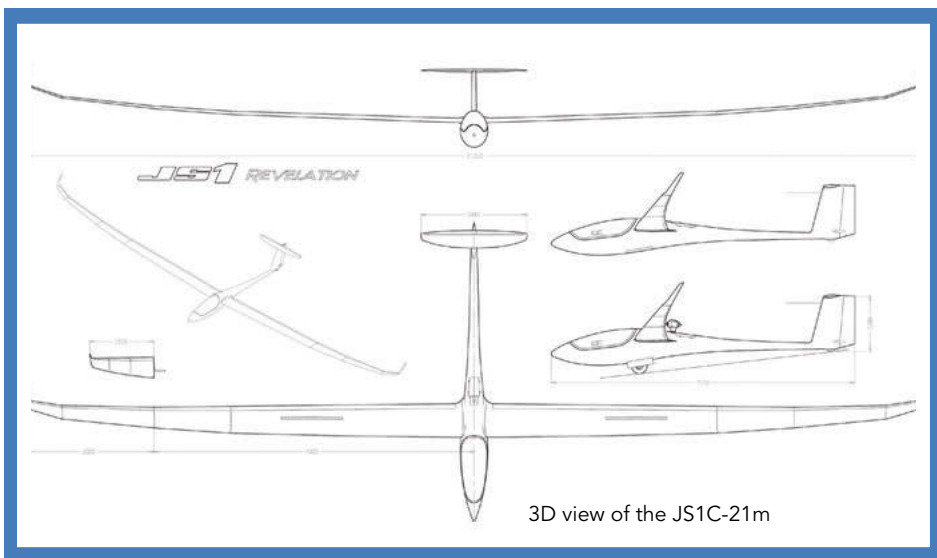


↪ and thicker spar stub on the outer wing panels with corresponding changes to the ends of the inner panels, including stronger wing spar caps. The outer wing panel locking mechanism has also been redesigned and refined.

To accommodate the increased water ballast requirements of the 21-metre option, the outer panels have solid integral water tanks with their own dump valves operated mechanically by a torque tube, which runs the length of the inner wing panels. In all other respects the inner wing panels, fuselage and tail are identical to the 18-metre JS1-B Revelation.

All 18-metre JS1Revelation from serial number 034 onwards, designated JS1C, incorporate the structural changes to the inner wing panel and are compatible with the optional 21-metre tips. Whilst the four examples competing at Uvalde will operate in the Experimental Category, the 21-metre option will be certified as a variant to the existing JS1 Revelation Type Certificate with certification anticipated by the end of October 2012.

The JS1C – 18/21 Revelation – can be flown at either 18-metre wingspan with class leading performance and handling, or as a potent and competitive 21-metre Open Class sailplane with pleasant handling characteristics. In its 21-metre configuration, the JS1 wing area is 12.27 square metres. With maximum authorised take-off mass of 720 kg, the wing loading range will be from around 37kg/sq m (depending on fuel load) to a maximum of 58.7kg/sq m. Best L/D at the maximum wing loading is predicted to be in the region of 60 with the glide remaining very flat up to very fast cruising speeds. The performance polar curve offers a significant improvement in



performance in the mid to high speed ranges in comparison with existing Open Class types.

The following is an extract from a report written by the 2001 Open Class World Champion and current South African Team Member, Oscar Goudriaan, after his first flight in the 21-metre JS1C:

On my first flight, the glider was ballasted to about 620kg, 100kg below the MAUW. Aileron control and responsiveness on aerotow was as good as the 18m version, remaining behind the tug with ease. Only when releasing did I truly appreciate the glider's stability in the turn, and the ability to thermal really tightly with no pilot effort. The feedback from the wings both while thermalling and in the cruise is as good as, or even marginally better, than the 18m version.

Not having much chance to compare the JS1C-21m against a known platform, I can't comment on performance, save to say that it feels right, and climbs really well.

I definitely think that the handling and ride are actually marginally better than the 18m version, with no perceptible loss of agility. Compared with the current generation of 26m+ Open Class gliders, the handling is streets ahead, with a lot less rudder being required than I expected.

The glider has a familiar feel, and I felt at home from the first thermal. The glider is not only easy to fly, but also feels easy to fly well.

The World Championships in Uvalde will demonstrate whether the smaller agile Open Class glider concept really can compete on equal terms with traditional big Open Class gliders. But as a dual span 18/21-metre sailplane which is competitive in both 18-metre and Open Classes, with an optional jet sustainer system, this evolution of the JS1 Revelation offers a lot of potential and fun for recreational and competition pilots alike.

THIS EVOLUTION OF THE JS1 REVELATION OFFERS A LOT OF POTENTIAL AND FUN FOR RECREATIONAL AND COMPETITION PILOTS ALIKE



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 prototype 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



This page, from top:

The photographs on this page are from the torrid 15m/Open Class/Lasham Regional comps (2-10 June). The top photograph and the one above were taken by Sarah Kelman on Regional Pink Day 1 (4 June), when everyone else scrubbed - again. The Lasham grid photo on the right was taken by Kerry Mertz

This page, from top:

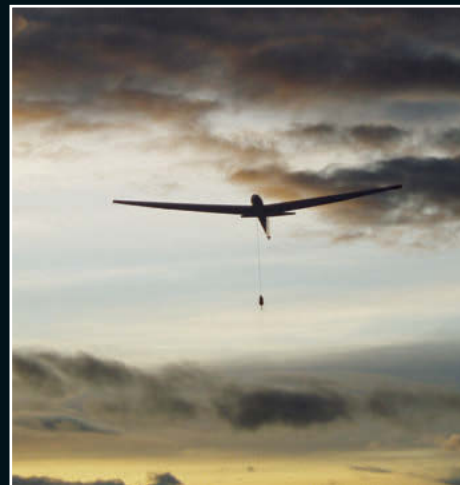
Two photographs taken during the Midland Gliding Club trip to Jaca, Northern Spain, in May 2012. The top photograph shows Midland GC BI Mike Rogers preparing for his Ass Cat rating with Midland GC CFI Mike Greenwood in unusual conditions – 10,000ft thermals, 10,000ft mountains and keeping a good lookout for vultures!

Ridge flying Spanish style – it's a bit bigger than the Mynd! (Mike Greenwood)

Burn GC's K-21 launching off runway 25 at sunset on New Year's Eve
(Alastair Mackenzie)

Puchacz ready for launch at Rattlesden Gliding Club in June 2012
(Roger Cottee)

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



FOCUS ON THE BIG PICTURE

Bernard Eckey looks at how we should focus on regular training to enhance our skills



Whether we look at the sport from a competition aspect or just from a recreational perspective it shows time and time again that success and a healthy dose of confidence go hand in hand (Bernard Eckey)

NO GLIDER PILOT HAS MADE IT TO THE TOP WITHOUT PERSISTENCE AND A STRING OF FAILURES ALONG THE WAY

WHEN you are really in love with an inspiring sport like gliding you will develop an almost insatiable appetite for increasing your knowledge of the subject. The more you know about gliding the more you want to learn about it and an upward spiral of understanding develops. Some pilots learn best by reading, detailed explanation and coaching while others learn mainly by practice.

Regardless of the method, the acquired knowledge is necessary and vital for success.

After you have attained an advanced level you can learn without instructors or coaches. You are no longer dependant on others and by mastering the art of self-education you find success. The road to success is never straight and often full of potholes. Failure is an element of learning and bouncing back is critically important. There is nothing wrong with making the odd mistake as long as we admit it, learn from it, and strive for future improvement. No glider pilot has made it to the top without persistence and

a string of failures along the way. And one more point for consideration – if you are socialising with achievers, you will become an achiever by adopting the attitude of achievers.

Confidence and over-confidence

Unshakable confidence in your own skills is undoubtedly of utmost importance for success in any sport, but when it comes to gliding it is of particular relevance. Regardless of whether we look at the sport from a competition aspect or just from a recreational perspective it shows time and time again that success and a healthy dose of confidence go hand in hand.

That said, I'm quick to add that we can

expect pilots to be confident only if their ability matches the task at hand. An early solo pilot lacking confidence in his or her own soaring skills is unlikely to keep a glider up for any length of time. Equally, a cross-country pilot with insufficient confidence will either turn around at the first sign of trouble or outland frequently. But confidence only develops with repeated and regular successes. Unfortunately, this psychological aspect of our sport is often under-estimated. How can low-confidence pilots get on the road to success? Here are a few suggestions for the early solo pilot.

- Choose to fly when the conditions are not too difficult – nothing is more disheartening than performing three consecutive circuits only to see your fellow club member climb into the same glider during the better part of the day and disappear for a lengthy flight.
- Ask your coach (or a pilot with proven soaring skills) to fly with you in a two-seater, share the flying and copy soaring techniques which have proven successful.
- When flying single-seaters, follow a pilot with proven soaring skills and take mental notes on where he locates the lift and how he centres the thermal.

For budding cross-country pilots the following suggestions might prove to be confidence boosters.

- Deliberately move just beyond the gliding range of your airfield. Making it back is bound to make a profound contribution to increased levels of confidence. Making it back easily will instil a real sense of achievement and hopefully encourage you to repeat such a success at the very next available opportunity.
- Fly on days when other pilots choose to spend the afternoon in the clubhouse. Successfully keeping the glider airborne will boost your confidence levels and you will be better able to rely on your own skill and judgement.
- Never make the same mistake twice. It's not only the dumbest thing one can ever do but it is also a frequent reason for

disappointment and a consequent lack of confidence.

● Analyse less-successful flights even more thoroughly than successful ones in a bid to avoid the decisions which have led to an undesirable outcome.

Now let's briefly turn our attention to over-confidence. There are pilots who, after a successful flight or two, seem to think they know it all. In their own minds, they are ready for long-distance flying and believe that records are no longer safe as soon as they get access to a competitive glider.

These pilots need just as much help as their more timid counterparts. Disappointment is waiting around the corner and may lead them to drop out of the sport very early without the successes they imagined. When over-confidence is paired with disregard for safety, the alarm bells must ring. An attitude such as "Regulations are for others to adhere to" and "I'm too good, an accident won't happen to me!" is a sure recipe for disaster.

A confident pilot can properly assess his own abilities and limitations, and may sometimes say "NO" in a marginal situation. This is by no means equivalent to an admission of inadequacy, but points to a realistic, responsible and mature attitude.

Commitment

We are spoilt for choice when it comes to aviation activities, but for very good reasons we have decided on gliding. But gliding is a time-consuming sport and family or friends often apply pressure to spend more time with them, or on other non-gliding activities. Unfortunately, spare time is often in short supply and therefore we are often forced into a delicate balancing act. However, especially during post-solo training it is absolutely essential to place gliding on top of our list of priorities until a level of proficiency is reached which allows a quick and trouble-free return to our sport if and when desired.

Failing to draw on our commitment to the sport and failing to prioritise in favour of gliding is all too often the reason for slow progress or even drop-outs. Making two steps forward and one step back is undesirable in any sport, but in gliding it is especially counterproductive. We must be quick to capitalise on opportunities for skill enhancement – a critically important issue during the early part of our gliding careers. Every now and then we must take ourselves aside and investigate whether our commitment is as high as it should be.

Commitment to achievement and progress is influenced by external and internal sources. Role models, coaches, friends, team mates and a host of other people are prime examples of external influences. If we socialise with dedicated glider pilots we are putting ourselves into an environment which is likely to lift our level of commitment. Mixing with top achievers will further benefit our level of commitment and will provide additional learning opportunities. Positive experiences or unexpected success can also energise us and become extremely powerful motivators. Meeting a gliding hero in person and learning from him or her is also sure to positively influence our commitment to gliding.

When it comes to internal sources for commitment, we have to draw on our own inner being. Usually the strongest and most consistent form of motivation and commitment comes from within us.

Commitment is something personal and is related to what an individual would desperately like to achieve. Therefore our internal 'fire and drive' is a much better motivator than any of the above external sources.

If we keep the 'big picture' first and foremost in our mind and focus on enhancing our skills through regular and ongoing training we will pass up any temptations for distractions. We will eventually be rewarded by the many wonderful experiences that gliding offers to those who have acquired above-average skill and knowledge.

Possessing and implementing the highest level of commitment is what our top pilots do in preparation for tasks such as international competitions and record flights. It makes these pilots different from most others, but being successful at this level is all about being better than others. Top achievers simply do things more thoroughly and professionally than everyone else and an undivided commitment is a big part of this. Our sport tends to reward deeply committed pilots by better flights.

■ 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

EVERY NOW AND THEN WE MUST TAKE OURSELVES ASIDE AND INVESTIGATE WHETHER OUR COMMITMENT IS AS HIGH AS IT SHOULD BE



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)



A THERMAL FOR ALL SEASONS

Alan Lapworth investigates how thermal strengths vary throughout the day and also at different times of the year



Figure 1: A meteorological surface instrumented site

**AT THE EVENING
TRANSITION
ALL THERMALS
ORIGINATING
IN SURFACE
HEATING DIE
AWAY SHARPLY,
ALTHOUGH
SOME CLOUD-
GENERATED
CONVECTION
MAY CONTINUE,
AS DOES WAVE
INDUCED LIFT**

SOARING conditions are usually better in the afternoon than in the morning, and in summer rather than winter. However, can any better idea be obtained of when the first thermals are likely to occur in the morning and die down in the evening, and how their strengths might vary throughout the day? And how are these factors likely to vary throughout the year?

Some rough answers to these questions can be obtained through studying data from surface instruments – thermometers and anemometers – and a study of this type

will be described below. However, such results will always be limited and need some confirmation from observations made of the atmosphere a few thousand feet above. Remote sensing equipment, such as sodars and lidars, are available but have their own limitations – they have difficulty distinguishing convective from wind shear induced turbulence. Also, in their common one-dimensional form, they often miss active thermal cores.

So, to give some confirmation of conclusions from the surface measurements, use has been made here of records of flight times, both from a gliding club and also from the BGA National Ladder. Such gliding data has the great advantage that pilots are actively seeking thermal cores!

The surface observations to be used here were made at a site in the south-east Midlands, shown in figure 1. Results were used from over 2,000 days during the six-year period 1997-2002. Figure 2 shows annual data for the incoming solar radiation at noon on the sunniest days (blue points). Each point, both in this plot and the ones that follow, is determined by taking the same day on each of the six years and taking the value from the one that appears to have had most sunshine. This does mean that there will be a fair amount of scatter in the results, as it is unlikely that even

one day in six has no cloud!

It can be seen from the plot that in midsummer the solar radiation amounts to nearly a kilowatt per square metre so that even a small field receives megawatts! However, only a fraction of this goes into heating up the air. About a quarter is reflected by a grass surface, another quarter goes into evaporating surface moisture and smaller amounts either heat up the earth itself or are radiated away. This leaves only about a quarter for heating up the air and eventually generating thermals (pink points).

Note that even thin clouds in the path of the solar beam reduce the solar radiation to a fraction of its value, so that on an average day in Britain the solar heating will be far less than the amounts shown here. In much of what follows, the sunniest days have been given particular emphasis as they are the ones most likely to be of interest for thermal soaring flights.

This flow of turbulent convective heat from the surface into the atmosphere starts an hour or two after sunrise and terminates about an hour or two before sunset. The relevant times are referred to as the morning and evening transitions. At the evening transition all thermals originating in surface heating die away sharply, although some cloud-generated convection may continue, as does wave induced lift. However, at the start of the day, the morning transition does not immediately result in thermals being generated. This is because during the night the layers of the atmosphere in the few hundred feet or so closest to the surface have been cooled down by radiative cooling at the surface itself.

These layers have to be warmed before the few thousand feet above can become fully convective, and this process usually takes several hours. In winter it can take all day if there is much cloud around. So another significant time is the first time of full convection. These three times – morning transition, first time of full convection and afternoon transition – together with sunrise and sunset times have all been estimated from the surface data.

The transition times have been fairly

accurately determined from measuring the surface convective heat flows. However, the first time of full convection is far more difficult to estimate. Three different methods have been tried. The first assumes that full convection first occurs when the surface temperature rises to become the same as that at evening transition, and this seems to correlate with the time that the surface wind first rises to near its maximum value.

However, there are a number of factors that reduce the accuracy of such an estimate from surface temperature. These are the effects of temperature variation during the day due to advection (ie wind induced), the effects of the surface superadiabatic layer and the overall warming of the lower atmospheric layers during the day.

The second method uses the fact that the surface wind rises to near its maximum value when full convection occurs. This works fairly well on sunny days when this rise is most marked. The accuracy is reduced by synoptic wind changes during the day and the difficulty in deciding what exact criteria to use. For this study, the average of the maximum wind and the wind at evening transition has been used as a criterion.

The third method uses the increase in cloud cover when convection starts. Although this gives a far better definition than the other two criteria, it gives a much earlier time because there is a lot of surface moisture early in the day giving low cloudbases before the atmosphere is fully convective. In addition, existing cloud cover can give spurious indications. Overall, the wind and temperature methods appear most reliable for sunny days, with the temperature method best on average days.

The results for the sunniest days in the six-year observing period are shown in figures 3 (afternoon) and 4 (morning). Figure 3 shows the annual variation for the sunniest days of the sunset time (blue points) and evening transition (pink points). It can be seen that for such days, the transition occurs about one and a half hours before sunset. Also shown (turquoise dots) are the average transition times for all days (ie including cloudy days) when the evening transition occurs about two and a half hours before sunset. The yellow dots show flight data which will be described below.

Figure 4 shows similar results for the morning. The morning transition (pink dots) occurs about an hour after sunrise (blue dots) on the sunniest days. The red points, estimated by each of the three methods described above, show the estimated time of first full

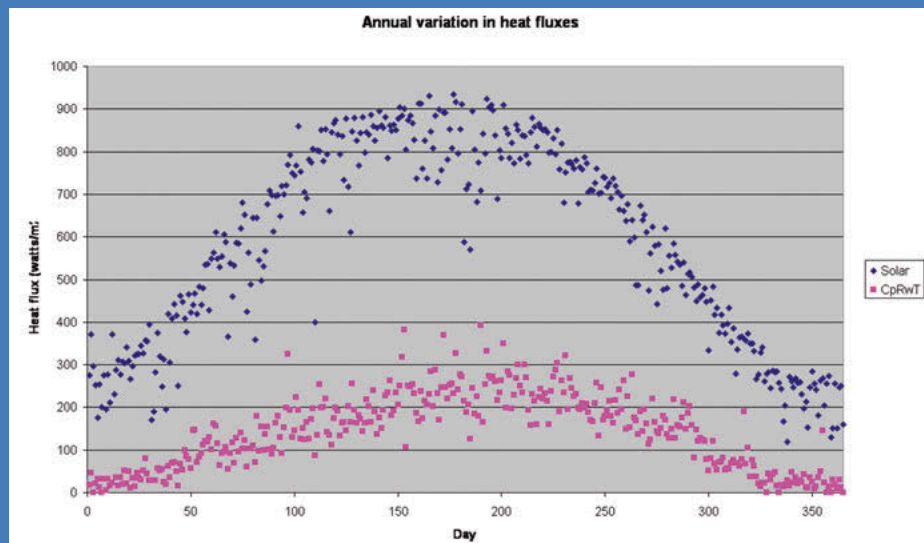


Figure 2: Annual variation of solar heating and turbulent heat flow on sunniest days

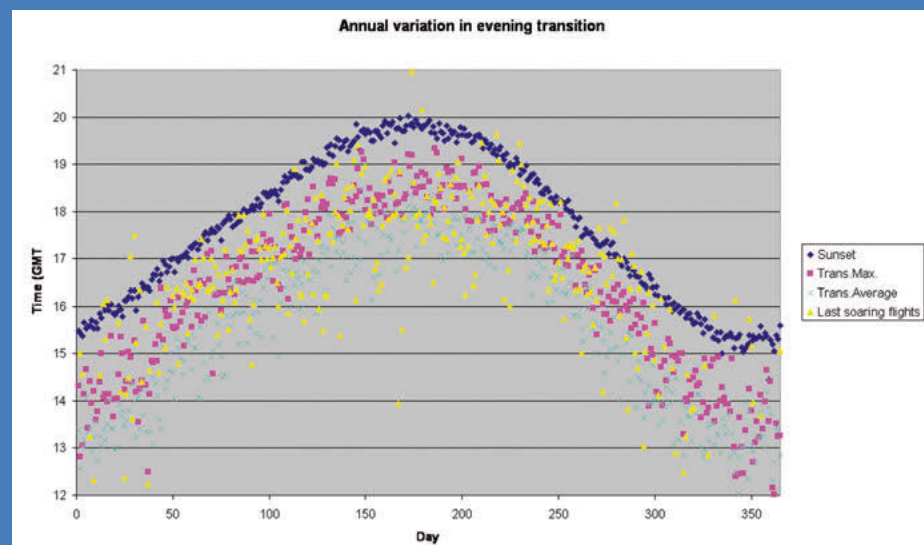


Figure 3: Annual variation of times of sunset, evening transition (sunny days and average days) and latest last soaring flights

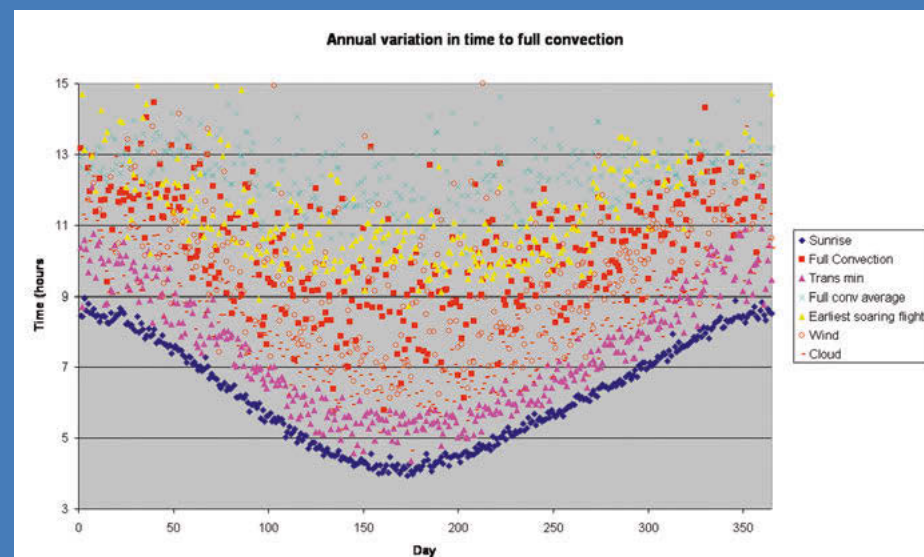


Figure 4: Annual variation of times of sunrise, morning transition (sunny days), first full convection (sunny days and average days) and earliest first soaring launches. The morning first time of full convection is shown estimated by all three methods (temperature, wind and cloud) described in text

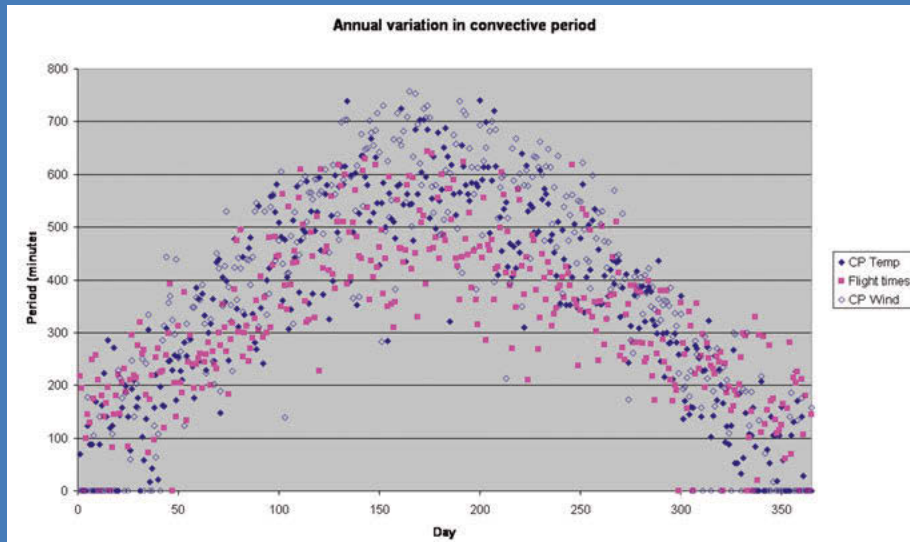


Figure 5: Annual variation of estimated convective periods on sunniest days and longest flight times on national ladder. The convective period is shown estimated by two of the methods described in the text (temperature and wind)

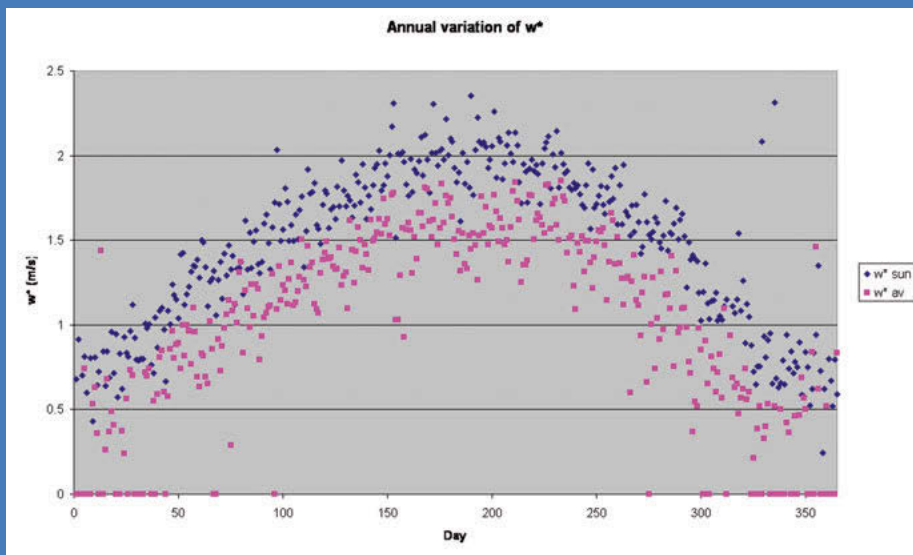


Figure 6: Annual variation of estimated average noon thermal strengths on sunniest days

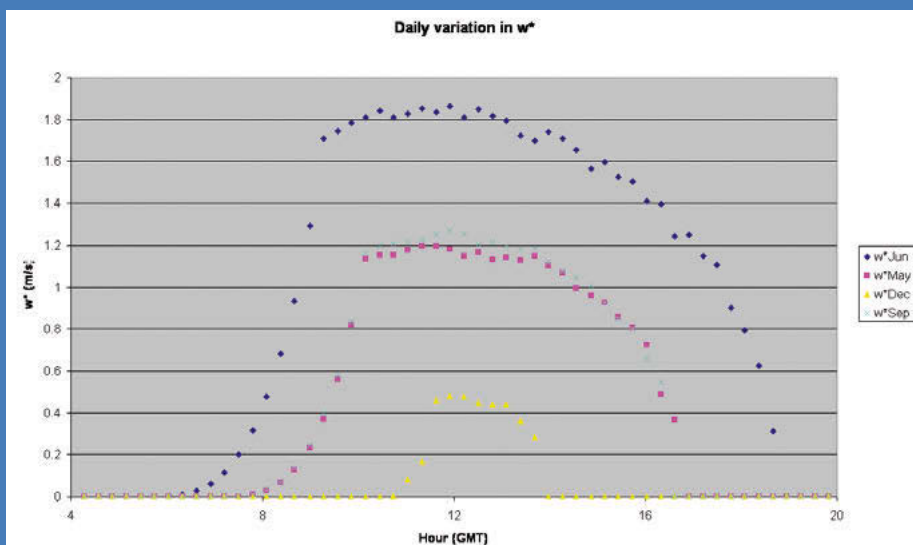


Figure 7: Daily variation of estimated thermal strengths on sunniest days for March, June, September and December

convection, which is generally between four hours (in summer) and three hours (in winter) after sunrise on the sunniest days. However, the average time for full convection taken over all days, including the cloudy ones, using the temperature method only (turquoise dots), ranges between eight hours in summer and five hours in winter! The longer time in summer compared with winter is presumably because the hotter ground radiates heat more strongly overnight, cooling the surface further. As in the previous figure, yellow dots refer to flight data discussed below.

Figure 5 shows the estimated period of full convection on the sunniest days (blue points) obtained by subtracting the first time of full convection, estimated by the wind and temperature methods, from the evening transition time. The pink dots refer to flight data.

The most difficult quantity to determine from surface measurements is the mean thermal updraft velocity and, as is well known, this can be affected by the wetness of the surface, which increases the proportion of the solar heating taken up by evaporation and by the wind strength, which breaks up the thermals. An estimate can be made from the surface turbulent heat flow on a light wind day using the following formula for the average thermal updraft w^* :

$$w^* = \sqrt[3]{\frac{gHwT}{T_0}}$$

Where g is the acceleration due to gravity, H is the height of the inversion capping thermal convection (usually at a height of several thousand feet on a fair weather day), T_0 is the average temperature and wT is the turbulent convective heat flow measured at the surface. It must be noted that this only gives an average updraft value over the whole thermal – the updraft at the core of the thermal at mid-height may be two or three times this.

One aspect of the above formula is that w^* depends on the cube of the heat flow and inversion height and thus does not fall away so rapidly as the heat flow value itself outside the summer period and at the ends of the day. On the other hand if it did not vary as the cube root, we would have some awesome 30kt thermal cores in summer! Figure 6 shows the annual variation in estimates of the value of mean thermal updraft at noon on the sunniest days using the above formula (blue dots) – the pink dots show the estimated values averaged over all types of day, including the cloudy ones. These values have been calculated assuming an inversion height at 4,000ft in summer, falling

to 2,000ft in winter, but the estimates are not very sensitive to the assumed inversion height.

The plot shows that, even in winter, the sunniest days should give average thermal strengths at noon of at least 2kts, with core values of perhaps 4kts or more so that, assuming minimum sink speeds of 2kts, some limited soaring might be possible.

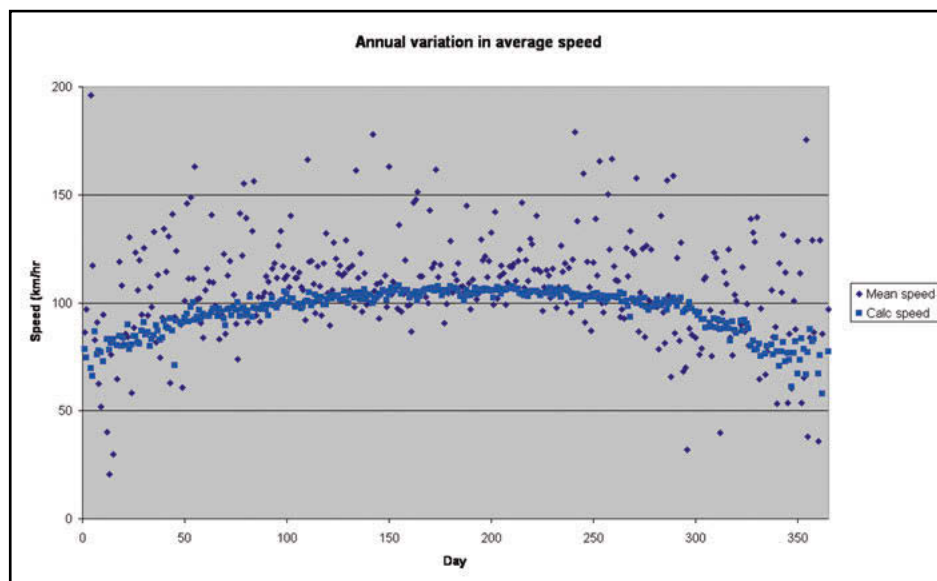
Figure 7 shows the variation in estimated thermal updraft values during the sunniest days at four periods during the year – March, June, September and December. The surface turbulent heat flows used in the estimates have been averaged over the sunniest days of each month. A linear rise in surface inversion height is assumed between the morning transition and the first time of full convection. It can be seen that there is a sharp rise in thermal strength at the beginning of the day, and a fairly abrupt drop at the time of evening transition. For winter days, the thermal updrafts are thus expected to be both weak and also last for only a short part of the day (about an hour or so), even for sunny days – clearly for cloudy days there will be no convection at all.

Flight records

So far, all the results have been obtained from the surface data, which is seriously limited in some aspects. In order to give some confirmation for them or otherwise, two records of glider flight times have been used. The first of these was supplied by the Oxford Gliding Club for about 50,000 flights made in the period 2000 to 2002. The club flies from Weston-on-the-Green in Oxfordshire, which is a flat site and from which almost all extended flights use thermal soaring.

The club operates a winch launching system so that non-soaring flights rarely last longer than seven minutes, except in winter when strong winds result in good launch heights and flight times of up to 15 minutes are possible. The main data available was for take-off and landing times. The club usually starts operating at around 11am local time (ie 10am GMT in summer) – although sometimes in summer launches may take place up to an hour earlier – and these relatively late starting times proved a limitation in estimating times of first convection.

On the other hand, the club often operates till sunset, which made better estimates of the time of evening transition possible. Another limitation from the point of view of estimating convective periods was the (very reasonable!) time limit placed on the club gliders. The club only operates at weekends, apart from Bank Holidays and two weeks in August. All times



in this record were local and so had to be converted to GMT in summer.

The second records were supplied from the BGA National Ladder, which gives flight periods and distances covered with glider handicaps but no take-off or landing times. These records covered the period 2002 – 2012 and included about 26,000 flights. One problem from the point of view of the present use was that a proportion of these flights may have included wave soaring, especially in winter.

The yellow points in figure 3 show the landing times of the last gliders on a particular day in the year, which had flight times of more than 15 minutes. There is a large scatter in the data. This is partly due to the weekend-only limitation – many year days will only include data from only two or three years, none of which may include sunny days and on some days the club may not have operated till late. The scatter is also partly due to the effect of cloud convection, which may carry on after the evening transition for high gliders. However, the majority of the points seem to be clustered round the time of evening transition for sunnier days, although many are scattered around the average time of evening transition for all days.

In figure 4, the yellow points indicate the launch times of the first flights with flight times greater than 15 minutes. It will be seen that these points are clustered around the boundary between the estimated first times for full convection on sunnier days and

Figure 8: Annual variation of fastest average flight speeds on National Ladder and estimated speeds for a specific glider using estimated thermal strengths



Glider flight at sunset

**EVEN IN WINTER,
THE SUNNIEST
DAYS SHOULD
GIVE AVERAGE
THERMAL
STRENGTHS AT
NOON OF AT
LEAST 2KTS**

IT IS IMPRESSIVE TO NOTE THAT FLIGHTS CONTINUE ALL THE YEAR ROUND, SUGGESTING THAT THERMAL STRENGTHS IN WINTER ARE STRONG ENOUGH FOR SOARING



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

✎ those for average days. Again there is some bias due to the weekend-only operation, but there is a major bias because of the late start of operations which clearly limits the earliest launch times.

A better estimate of the time of first full convection might be obtained from the National Ladder dataset, which is presumably not limited by either weekend-only flying or late morning launches. Also, for this dataset, relatively sunny days are more likely to have been chosen for the flights. However, in this record launch times are not available and so in figure 5 the overall flight times of the longest flights for each year day (pink points) are compared with the overall convective period (blue points) obtained by subtracting the estimated times of first full convection from the times of evening transition on each year day for the sunniest days. The convective periods using the wind and temperature methods for the morning time of first full convection have been shown separately.

There is surprisingly good agreement between the top envelope of the longest flight data points and that of the longest convective periods, except in mid-summer. It may be that in mid-summer flights do not start as early as is possible, or that these longest flight times are limited by other considerations. As might be expected, some flight times are less than the corresponding estimated convective period.

It is impressive to note that flights continue all the year round, suggesting that thermal strengths in winter are strong enough for soaring as indicated in the calculations of w^* . However, it is impossible to know how many winter flights entered on the ladder were the

result of wave conditions.

The only flight data analysed here that might have some bearing on thermal strengths is that of the average speeds obtained by dividing flight distance by flight time, and adjusting this for handicap. Unfortunately the inter-thermal speed and wind strengths are unknown, as are the glide angles. However, to give some indication of whether the annual variation in estimated thermal strengths is approximately correct, the fastest average speed for each year day has been compared with speeds calculated for flights using an inter-thermal gliding speed of 130km/hour, a gliding ratio of 1/40 and calculated w^* values taken at noon and multiplied by a factor of two to give average core updraft values over the period of the flight.

The results are shown in figure 8 (overleaf). The (impressively) fast average velocities (handicap applied) are indicated in dark blue and the calculated flight speed in light blue. Both plots show a similar form of speed reduction in winter, which may indicate that the annual variation in estimated thermal velocities is not entirely unreasonable.

Overall, the above results give some indication in the daily and annual variations in thermal strengths on the sunniest days. The flight records give some support to the values calculated from surface measurements, but the lack of detailed data and the natural variability of the atmosphere make an exact verification difficult to obtain.

■ I would like to thank Paul Smith for supplying records of OGC flights and John Bridge for supplying records of the BGA National Ladder.

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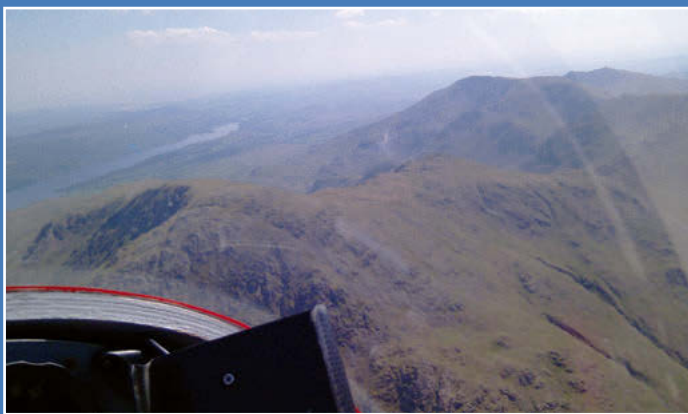
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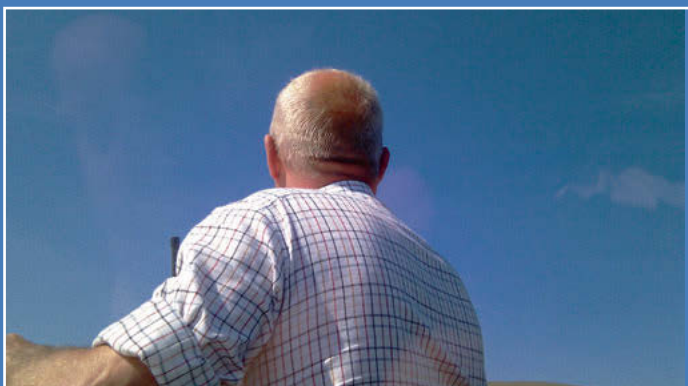
Frank Bradley "getting away" in his K-6CR a few days before completing his Silver distance in The Lakes



Flying over Crinkle Crag, the Duddon Estuary centre distance, Black Combe on the right in the distance



Wetherlam and Conistone Old Man are seen on the right; Conistone Water on the left



Frank Bradley looking at that sky (photographs by Pete Whitehead)

Edensoaring's Frank Bradley finds Silver in the mountains of the Lake District, flying a task never previously undertaken by a Bronze pilot

THIS May I was lucky enough to be invited by Pete Whitehead of Edensoaring to join his annual gliding expedition to Latrigg, near Keswick, in the English Lake District.

Qualified – only just – with a Bronze badge (and Cross-Country Endorsement), I was excited but rather daunted by the prospect of Latrigg, at 1,200ft QNH and with its small undulating and rocky top. The 1.5-metre wide "runway" (less rough and uneven than the rest of the ground) was marked out using white plastic bags held in place by big staples made from piano wire. Boulders within 10 metres of the strips were marked by yellow plastic bags.

Pete's winch is an old 3.5-litre Rover engine with an automatic gearbox and one wheel hub modified to act as a cable drum, all of which is housed in a sheep trailer.

In case of problems with the winch, Pete also brought along his bungee gear, as well as rope and pulley, to auto launch if necessary (belt, braces and string). Two "eventuality" fields used on previous expeditions were identified to the new boys – Bob Sharman and me – down in the valley bottom to the west of Latrigg and at about 300ft QNH.

My task for the week was to learn how to fly safely through rugged terrain then land my K-6CR back on top of Latrigg – a place you would not normally choose as a landing field!

Things went well and with each flight in the mountains locally I was gaining in confidence. So when Pete suggested I do a 50km Silver distance through the mountains of the Lake District this did not seem too unrealistic.

The task set was to launch from Latrigg, fly three miles downwind to the hills west of Keswick and get established there before flying to a remote start near the north end of Bassenthwaite Lake. This provided a clear 50km to a landing field near Haverigg, at the southern tip of the Lake District, but avoided a four-mile sea-crossing on a final glide to Walney Island, home of The Lakes GC. Pete didn't want a drowning "first".

As Pete says, "PPPPPP". So, first some discussions of the route through the mountains in the easterly winds forecast for the day. We discussed the route, which could be done in pure hill lift if necessary, and I then needed to check any suitable fields en route and also any airspace restrictions.

The maps that helped were the 1:500,000, 1:250,000, a walkers' map of the Lake District indicating the mountains plus places of

EPIC

interest, a local road map, but particularly what we call a “Braille” (3D) map of the Lake District loaned to me by my son Tony, which he uses for his paragliding exploits.

A drive south through The Lakes to Millom on the Wednesday helped identify the possibility of suitable fields. Oh hell, full air brake and maximum side slip then! Bob helped get the radio and airspace AWARE connected and working to complement my Garmin III.

On Friday 25 May, the stage was set for my epic 50km Silver through the Lake District mountains. “A task never previously undertaken by a Bronze pilot”. No pressure there then!

After many hours flying in the fells at Edensoaring, plus the couple of flights at Latrigg earlier in the week, I felt quite comfortable flying with the crags a couple of wingspans away. What did prove uncomfortable was looking directly ahead at Honnister Slate Mine, which should have been to the right of my track. “Parked” in thermals and ridge lift well clear of the crags, I studied the maps, GPS and AWARE whilst looking out for the dangers – other gliders, RAF fastjets, gyrocopters and Osprey eagles with their two-metre wing-spans.

The correct route sorted, I back-tracked and went east into what initially looked like a dead end surrounded on three sides by mountains.

Plan A was to enter at speed, not less than 50kts and Plan B was to exit via the same route if things got rough. So in I went, turned right into the hidden valley of The Langstrath and then “plain sailing”, keeping England’s beautiful ridges of Bow Fell, Crinkle Crag, Conistone Old Man and, lastly, Black Combe on my right. So this part was more like the flying on a day in good westerlies at Edensoaring’s Skelling Farm.

On reaching Millom, all I had to do now was land out 50km plus from the start line without accident or infringing the Walney Island air space and, preferably, not coming down in the Duddon estuary! Choices included any number of the biggest silage

fields in Cumbria or between the wind turbines on the old airfield, or even the exercise field at Haverigg Prison!

The latter two would probably mean having to get hold of keys for a retrieve and even more paperwork so these were quickly forgotten. The first field chosen had an electric line running along one hedge so I chose a second one, huge and hazard-free.

What a pleasure to have plenty of height and no hurry, unlike my previous field landings! I also unexpectedly contacted strong wave in every direction, which made the whole episode surreal. Forget the possibility of adding some height badges, though, let’s just get this one safely in the bag.

A safe landing, telephone calls to the pleasant Distress and Diversion man and my retrieve, Bob, followed by a walk to the local farm for explanation and thanks. Then back to the glider and a half hour’s kip under the wing out of the sun to get the head back down to earth and resume normal life.

The moral of this story is do not let gliding become routine and boring or you will lose interest and gliding will lose you.

My goals for this year are Silver height, Gold distance, bungee launch and auto launch.

Having started gliding three years ago at 61, I intend to enjoy every aspect of the sport before I am too old (one day, no doubt, I shall get the hand on the shoulder and a bit of friendly advice!).

Thank you to all those instructors and senior gliding pilots for their knowledge, as well as Anne and Richard Walker for their tireless work for the club. Most importantly, thanks to Peter Whitehead, without whom I would just be another ageing glider pilot reminiscing about the good old days to whoever would listen. Go for it.

I CONTACTED STRONG WAVE IN EVERY DIRECTION, WHICH MADE THE WHOLE EPISODE SURREAL

■ Frank Bradley is a star. He started gliding at the age of 61, with no previous flying experience, in 2009. Learning later in life is always a bit harder, but Frank has always shown determination, focus and what can only be described as a love for gliding. After he soloed he did exactly what I advised (that’s a rare thing) and bought a K-6CR and flew it for over 100 hours in his first season.

He has always kept going through the winter, at other clubs when Edensoaring was closed, and just “soaked up” everything about gliding. He now has a Standard Cirrus as well. So, after being brought up flying close to the hills and mountains at Edensoaring, and having had already more than the average amount of field landing experience under his belt, I was keen to say yes to his request to join us on a Latrigg expedition.

My faith in him was well placed, as you can see from his account. And the weather played ball with days of easterlies with wall-to-wall sunshine during “that week” in May. He has been a pleasure to coach, and I think he is an inspiration to us all.

Pete Whitehead, Edensoaring



Frank Bradley started gliding at Edensoaring in 2009. He owns a K-6CR and Std Cirrus. Frank has 197 hours, Bronze badge, Cross-Country Endorsement and Silver distance

SILVER

The area in the atmosphere around 90,000ft is popularly called the 'Ignorosphere', mainly because it is an area we know very little about. The altitude is way too high for conventional airplanes and too low for satellites. A new research project, called The Perlan Project, is building a glider capable of flying at these altitudes to document the influence of mountain waves on global circulation. Jens Trabolt reports



SOARING AT THE EDGE OF



THE Perlan Project is an attempt to construct a glider capable of soaring to FL900 (28km!) in an unexplored part of the atmosphere. There is more or less no experience in flying gliders in these altitudes and the test pilots are putting themselves in a critical and life threatening scenario. But that is not holding a group of enthusiasts back.

The project is divided into three parts, the first of which came to realisation on 30 August 2006 near El Caladate, Argentina, where Steve Fossett and Einar Enevoldson flew a modified DG-505 to an altitude of 50,761ft. This was, at the same time, a world record for gliders. Despite the record it became clear that the aircraft, regardless of modifications, was pretty ineffective at flying in the extreme altitudes. That is why the Perlan Team is now making a brand new airframe with a rather unusual design. But this sort of stuff requires money – lots of money. The main benefactor of Phase 1, Steve Fossett, was unfortunately killed in a plane crash a year later, and the project quickly ran out of funds.

But now the well-heeled Dennis Tito – also known as the man who paid in

SPACE



Phase 1 (top left) Steve Fossett and Einar Enevoldson with modified DG-505 they flew to 50,761ft

Phase 2 and 3 (top right) special construction with trykabine, yaw-sampler and bremsfeldskaerm.

(Below) Every component is weighed and checked. Seen here are the internal ribs of the tail construction



HEIGHT RECORDS FOR FIXED WING AIRCRAFT

The Russian chief test pilot Alexander V. Fedotov set a world record on 31 August 1977, for altitude gain in a jet-powered aircraft without the aid of rocket power. He obtained 123,520ft (over 37km!) for a brief while in a 'zoom-climb' in his MiG-25RB, which was modified with the more powerful R15BF2-300 engines. However, the absolute world record for fixed wing aircraft was set by Brian Binnie in 2004, when he reached a maximum altitude of 367,442ft in the rocket-propelled SpaceShipOne – during the flight he reached Mach 3.09.



✍ the region of 14 million Euros for the joy of being a space tourist to the International Space Station – has devoted his pecuniary love to the project, and the work and development of the specially constructed airplane can continue.

There is no lack of challenges – both of human and technical nature. At 90,000ft the air is extremely thin and the aircraft has to fly at a very high true airspeed – more than half the speed of sound and an abundance of things are threatening both the stability of the airplane and its pilots.

Not your average club glider

Windward Performance in Bend, Oregon, designs and manufactures the Phase 2 aircraft and, according to the company's owner Greg Cole,

the work is progressing well with regards to the aerodynamic and structural part of the process. If the project succeeds, the Perlan2 will likely be the aircraft that performs the highest horizontal flight ever.

The aircraft that is currently being constructed by 24 staff members is made completely out of composite materials and has a wingspan of 25.55m – comparable to a Nimbus 4D. The aircraft will be equipped with a pressurised cabin. At first it was intended that the pilots would wear pressurised suits, but for the sake of weight and space the idea has been dropped.

Among the test pilots are Australian glider pilot Morgan Sandercock, who has also invested money in the project. FLYV editor Jens Trabolt caught him on a noisy cellphone line when the Perlan Team was on a field trip for possible launch sites in Argentina.

"It is a dangerous mission – no doubt about that," Sandercock confirms. "But I believe in

the design of the aircraft. The designer, Greg Cole, will tailor the aircraft to high altitudes and there will be a reasonable margin for error built into it. At 90,000ft our True Air Speed will be around 350kts," he added.

Like flying on Mars

One of the problems with flying at very high altitudes is also a lack of influence the low density has on the aerodynamic stability. The flight will be close to the so-called "Coffin Corner", where there is a very small margin for speed changes between the stall speed and high speed buffet onset. Improper handling could increase the risk of uncontrolled tumbles and extreme spin manoeuvres. That is why the aircraft is equipped with a very large tail plane. Furthermore it has been considered to implement a form of active yaw-damping, to help stabilise the aircraft. As an emergency precaution the aircraft has been equipped with a tail-mounted drogue chute that will ensure a descent of 20,000ft/min even with unconscious pilots. Should the pressurised cabin fail at 90,000ft, where the ambient pressure is just a mere three per cent of MSL, a descent-rate of 20,000ft/min would hardly save the pilots though.

"Even at 90,000ft the pressurised cabin will maintain a pressure equal to that of 14,000ft. We will, of course, wear masks, but in practice we wouldn't need them for quite some time," says Morgan Sandercock. For this purpose, the team is currently testing a recirculating system similar to that used for certain types of diving. The advantage is that the water molecules expelled by the two pilots (up to 50cl pr hour/person) are avoided, because they could freeze on the inside of the canopy and block the view. Another advantage is that the exhaled air is passed through an active filter, which scrubs out the CO₂ – therefore it is only necessary to add a small portion of oxygen to the

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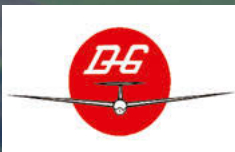
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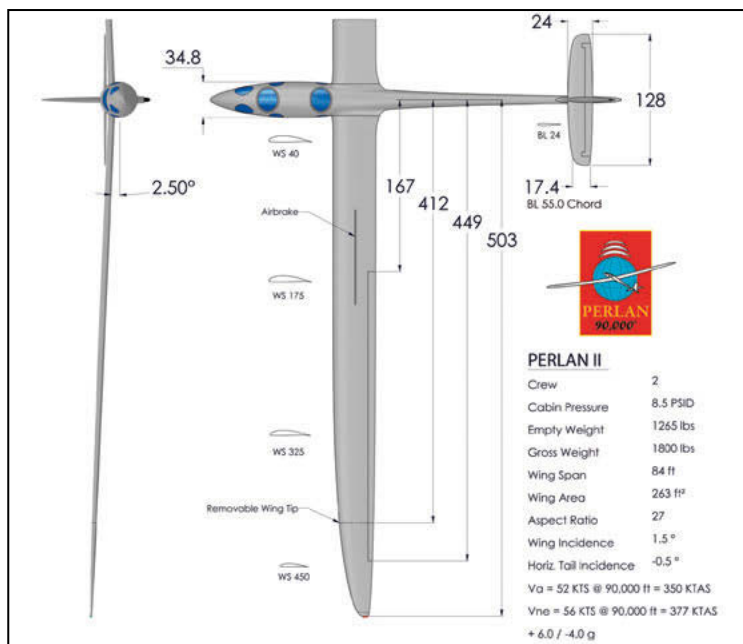
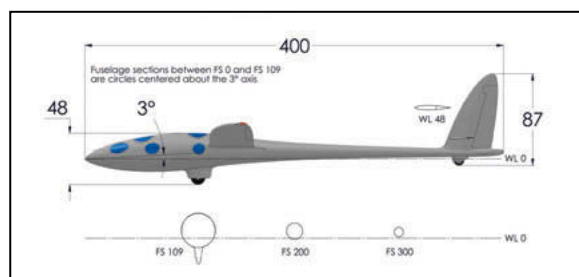
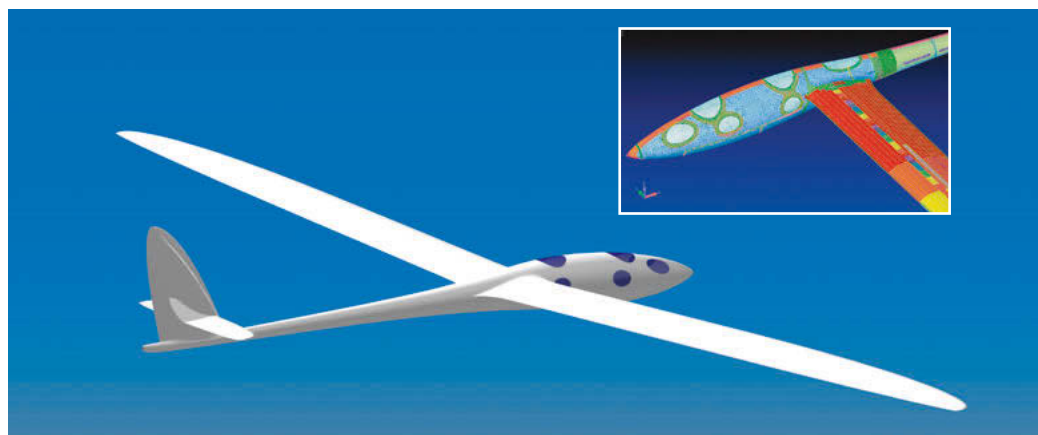
90,000FT EQUALS SPACE FLIGHT

"It is extremely dangerous" – that is how aviation medical examiner Mads Klokke, from the Aviation Medical Clinic of the Copenhagen University Hospital (Rigshospitalet), characterises a flight to 90,000ft.

"It is a very hostile environment to be in. They have to be very confident in their equipment, especially when they don't have a back-up. A depressurisation at 90,000ft results in almost instant lethality – there is 40,000ft down to the limit where you can absorb oxygen with a facemask without a pressure suit or cabin," said Mads Klokke.

Numerous interesting things start to happen with the human physiology when we rise in altitude. Already at 10,000ft many will start to feel the first signs of oxygen deficiency, if you are flying without oxygen. At altitudes over 18,000ft nasal cannulas are no longer efficient and the American FAA requires full-face diluter demand or pressure-demand masks, which solve the problem until the next limit is reached. "Space" is reached at 50,000ft, where you no longer can absorb the oxygen by oxygen mask alone. Here you need either a pressurised cabin or suit.

If you continue even higher, like the Perlan2 aircraft intends to, you will eventually pass the Armstrong line by around 62,000ft, where the atmospheric pressure is so low that the free body fluids have a boiling point of 37 degrees. This means that both the saliva and the water wetting the lungs alveoli will start to boil. The US Air Force Flight Surgeons manual states that the Time of Useful Consciousness at this altitude is around 5-15 seconds. Five seconds clean in case of rapid decompression. Unconsciousness sets in – followed by death.



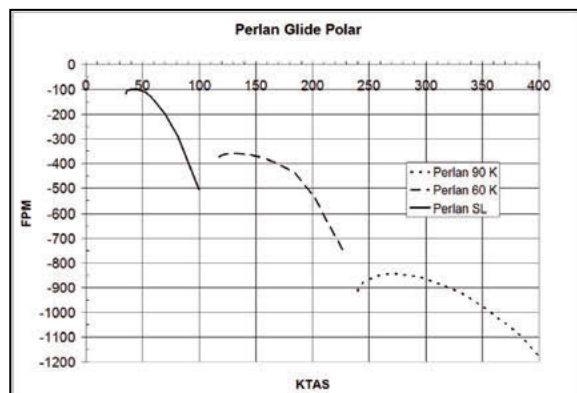
PERLAN2 DATA

Seats: two
Cabin pressure: 8.5 psi
Empty weight: 574kg
MTOW: 816kg
Wing span: 25.22m
Wing area: 24.43m²
Stall speed: 33 KIAS
Va (maneuvering speed): 52 KIAS/350 KTAS @ 90,000ft
VNE: 56 KIAS/377 KTAS @ 90,000ft

(Above) The goal is over 90,000ft with this specially designed aircraft (Inset) Modern software simulation is a huge part of the development of the new designs. Here is a simulation of flutter

(Below) The team inspects the moulds used to manufacture the main spar of the Perlan2

(Far below) Einar Enevoldson (a founder of the project), Preston Michie (member of the Perlan Project's board and its attorney), Dennis Tito and Greg Cole are looking at Dennis Tito's own aircraft which he took to Argentina to gain greater knowledge of mountain soaring





air which is inhaled again. It is such a small amount that, on the six- to seven-hour long flight, only a couple of kilos of oxygen are needed from a compact canister.

To enhance the comfort, the aircraft will be equipped with a fully insulated-cockpit and glass windows. In an ordinary glider there is often a draught even though all vents are closed, but this will be avoided in the Perlan2. With a well-insulated cockpit and a closed rebreathing system, internal icing problems of the canopy are avoided.

Off to a good start

"We are off to a good start with the aircraft and our funding is sufficient to finish it. We have completed the moulds for the wings and the flutter tests are over. The next goal is the structural assessments of the pressurised cabin, and that will be at -60 degrees with destructive test as well," says Morgan Sandercock. "I expect Perlan2 to be ready this year, and that we then can get to work with the first record attempts in 2013. But before that we will do test flights in the Sierra Nevada mountain range in the United States."

The record flights will in all likelihood take place in El Calafete, Argentina. The six- to seven-hour long flights will initially be by way of aerotow until established in the mountain waves, which will then carry them

to approximately 50,000ft. In the classic flight testing style, the aircraft's envelope will be expanded with 10,000ft at a time, until the team – hopefully – reaches 90,000ft. On top of the well-known mountain wave the team expects to come in contact with another wave system, the so-called "Polar Wave", which will carry Perlan2 even higher. Knowledge about this system is limited and the pilots expect the transition from one wave system to the other to be "difficult", as Sandercock so nicely puts it.

Dangerous? Yep, and the pilots are aware of it.

"My biggest contemplation is with myself and the other pilots. We can test the plane from tip to tip, but it is a complex machine and humans are prone to error, and at those altitudes there is no room for mismanagement," says Morgan Sandercock.

But at least the pilots can concentrate on flying the plane. In Argentina, the controlled airspace ends at 60,000ft.

If they will get the record in the bag in 2013 or 2014, the project will move on the Phase 3. The goal is then 100,000ft.

■ With thanks to FLYV editor Jens Trabolt for permission to reproduce this article.

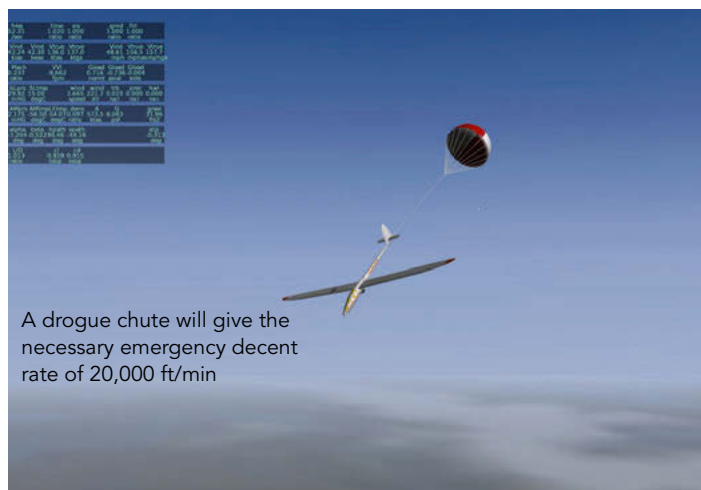
(Above left) Ed Warnock and Dennis Tito listen while Sean Childers explains the manufacturing process of the rudder

(Above right) The aircraft's designer Greg Cole sits in the cockpit while explaining the interior layout to Dennis Tito and Wade Carman



The aircraft consists of many small parts. Above is the front part of the pressurised cabin. This part is also intended for the attachment of the aerotow linkage

■ All photos courtesy of the Perlan Project



A drogue chute will give the necessary emergency decent rate of 20,000 ft/min

FLYING ON EXTREME MOUNTAIN WAVES

Stratospheric waves start their life as mountain waves in the lower part of the troposphere and propagate vertically under unique conditions. These mountain waves can, in certain cases, travel all the way up in the stratosphere and spread out and even increase in vertical movement (lift) to altitudes of over 100,000ft. One of the primary goals of the Perlan Project is to obtain scientific readings to gain a better understanding of mountain waves and their influence on global circulation. The Perlan2 aircraft will measure wind, temperature and readings of vertical uplift in the waves.

More info: <http://perlanproject.org/>

ACRONYMITIS!

David Clark explains why we should forget glidingspeak and talk to gliding club visitors in English - particularly if we want them to come back as members

Cartoon by Matt Wright,
Devon & Somerset GC

ANTHROPOLOGISTS are fascinated by isolated aboriginal communities, deep in remote rainforests, whose primitive languages are unknown and incomprehensible to outsiders. Similar primordial tribes inhabit gliding sites in forgotten corners of ex-WWII airfields across the UK. They speak in contractions, ciphers and mnemonics that visitors find fathomless, even forbidding. It is important in attracting those coming for trial lessons, who are the fliers of the future, to talk to them in words that they understand.

Glidingspeak

Glidingspeak is the language of soaring flight. It is a dialect of aviationspeak infused with elements of meteo and radiospeak. Glidingspeak is, first and foremost, a language of acronyms. No fewer than 1,100 of them are used in AIS publications according to the ICAO, as listed in the

appendix to the CAA's NOTAMS! Their importance is emphasised in the basic rule of flying - 'aviate, navigate, communicate, abbreviate'.

Glidingspeak conveys meaning in code. Its supreme achievement is the half million aeronautical chart, a magnum opus that is a triumph of abbreviated complexity. I recently counted over 60 acronyms on the southern England and Wales sheet before I fell asleep. There are, in addition, more than 100 ATZs, each with its four-letter identifier, and a selection of OS pictograms. The code is enriched by NOTAMS that are enciphered in complex sets of alphanumerics, and by the Met Office's F215 forecast chart that incorporates a system of Egyptian hieroglyphs to denote severe conditions, such as icing and turbulence. Fortunately, in the daily weather briefing, if my club's ENIGMA machine is U/S, I can always ask an instructor. Or simply look out of the window.

Gliding acronyms are formed from a small number of letters that are combined in a multiplicity of ways. The meaning of individual letters varies with context, as is the case in the most sophisticated ciphers. The letter 'A' is by far the most used, being the first letter in 132 of the CAA-recognised acronyms. It can mean: air, as in A/A, aircraft (ACARS), above (AMSL), approach (ALS), aerodrome (ATZ), aeronautical (AIP), advisory (ADR), altitude (ALT), airway (AWY) and more. 'F' and 'R' occur as first letter nearly 100 times. The single letter 'R' has five completely different meanings. Help!

Further ambiguity arises because some acronyms have more than one meaning. ATA, for example, means actual time of arrival and aerial tactics area. AOC is aerodrome obstacle chart and air operator certificate. ASR is altimeter setting region and airspace reservation. RAD means radar approach aid, radius, and route availability document!

The number and duplication of acronyms highlight a clear need to abbreviate the abbreviations. It is conceivable that, with time, all other letters will become superfluous and glidingspeak will contract into groupings of As. Such strings will be totally incomprehensible to outsiders who are not privy to the code. The ancient Minoans went



down this route with their Linear A language. It has never been deciphered.

Brevity of expression is essential in R/T, but the excessive use of acronyms leads to misunderstanding and confusion. The culture stems from the days of Morse code, but abbreviation for abbreviation's sake is unnecessary. It is an affectation that is surely out of date in an age of automatic text generation and the WWW. With electronic communication, there is little need to resort to acronyms to economise on paper and, in any case, there are few trees left to save. There is clear merit in having an EASA-wide language so that no one feels discrimination, but how many people are fluent in Esperanto? Of course if history had turned out differently we would all be speaking in polysyllabic German by now. Acronyms would then be essential.

Talking to visitors

If I'm frustrated by glidingspeak, what do visitors make of it? Many arrive with trepidation for a trial lesson, purchased as a generous birthday gift by a malevolent relative, who accompanies them so as to enjoy a little schadenfreude. They are surprised and disturbed to find that gliders have no engine or ejector seat and that one of the key instruments is a short length of string. Some gliders appear even to pre-date the invention of the wheel. The clubhouse chatter, of DIs, ASS CATS, ASI, ATC, QNH, VFR, K-21, etc, is mysterious and unsettling, as is the manic bat-waver on the field. Fortunately, in a trial lesson, visitors are

unlikely to experience any HASSLL. Landing is a welcome return to their familiar world. Most never come back.

Visitors need to be put at ease. They require encouragement, reassurance and TLC. An acronym-free room is suggested at each gliding site. Here, victims can be given a pre-med and quietly prepared for their ordeal. Subdued lighting, pastel shades and soft music induce calm, as does a large tank of tropical fish. English is the preferred mode of communication, although here in Stratford on Avon, Brummie seems to suffice. Above all, resist the temptation to engage in glidingspeak – at least until they have paid!

Cossetting visitors is essential because gliding tribes are unable to reproduce naturally and so secure their own futures. Far too many of their members are elderly men, who spend long hours alone in a cockpit with only a pee-bag for relief. Extinction is distinctly possible. Perpetuation of the sport can only be by recruitment, and entry is falling.

Visitors are the key to survival. Today's visitor is tomorrow's *ab-initio*, next year's Silver C and the CFI of the future!

Acronymitis

This missive concludes with an important health warning. Acronymitis is a recognised medical condition that requires urgent treatment. If you hear a fellow club member ranting about DAAIS, MATZ, METAR, NATSU and the like, first check that he is not simply talking out of his GVS. If not, get him to a GP, ASAP.

COSSETING VISITORS IS ESSENTIAL BECAUSE GLIDING TRIBES ARE UNABLE TO REPRODUCE NATURALLY AND SO SECURE THEIR OWN FUTURES



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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THE PROCESS OF LEARNING **PART 2**

S&G instructing adviser Mike Fox continues to discuss training with ab-initio Malcolm Taylor at Seighford



Malcolm Taylor likes to plan and discuss routines with the instructor as part of his pre-flight briefing



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

MALCOLM: Mike, last issue we talked about *ab-initio* training and instructors. As I have progressed, I've begun to plan my own routines before flying and then I discuss them with the instructor as part of my pre-flight briefing. That way the instructor doesn't have to spend too much time deciding what exercises I should do and I can concentrate on the specific tasks that I need to practise. But do you have reservations about pupils planning their own tasks?

MIKE: One of the most challenging things about being an instructor is deciding what to do next and planning how. Most instructors are great at this, but some are not so practised. If a student comes along with a list of exercises they wish to carry out on a flight, it is very tempting as an instructor to say, OK – fine, let's go! But it is the instructor that is in the best position to set the pace and content of training, due to his or her experience, so instructors should always spend time checking that the suggested activities are in the student's best

interests. So I would say that it's helpful, if used with caution. Of course, instructors have the best chance to schedule appropriate training when there is instructor continuity, and not a new instructor every week!

MALCOLM: At my club, each student gets three winch launches per training session, which I find very helpful, especially if a flight lasts only five minutes! I try to use these to have a new task demonstrated by the instructor, I then attempt the exercise myself with prompting, and finally try to do it without prompting. In this way, both I and the instructor know what I'm trying to do. Can you see any problems with this approach?

MIKE: Again, that sounds like a familiar and appropriate approach to training, but perhaps not for every session. Sometimes

it may be preferable to take some time in a motorglider or perhaps take a high aerotow to consolidate some upper air work. If it feels like the flights are always a bit of a rush, it might be a good idea to suggest this to your instructor. Aerotows and motorgliding may look more expensive on paper, but they may well save you money in the long run if it gives you time to get to grips with one aspect of flying or another.

MALCOLM: Sounds like some good hints to go into my training notebook! Now, what's your opinion on cockpit communication? When I'm practising a new task, I prefer to inform the instructor what I'm about to do, so he knows what to expect. For instance, if I'm turning, I'd say: "Turning right, 90 degrees". I know cockpit chat isn't universally popular with instructors, but do you feel it's a distraction?

MIKE: It wouldn't be a distraction to me, but talking sometimes takes away some brain processing power from handling the aircraft, making judgements or scanning appropriately. Remember the old aviation adage of Aviate, Navigate, Communicate. Flying the aircraft always comes first. Second comes pointing it in the right direction, and always last comes talking. You will find that it doesn't take much to shut me up in the air!

MALCOLM: I guess that having access to a gliding simulator would be an excellent way for the student to practise stick and rudder co-ordination, the one thing that I struggled with at the start. It might also be a useful way of attracting new students as well, but a simulator's too expensive for most clubs isn't it?

MIKE: Some clubs have a dedicated simulator cockpit, but to practise the basics of flying a glider, a decent joystick, set of pedals and reasonably fast PC is all the hardware that's needed. I have flown with some young pilots, who have never flown anything but a PC simulator before, and they can fly perfectly well! Lookout and judgement of angles and distances aren't best represented in most simulators. Some of the more expensive,

multi-screen ones (with dedicated rooms) are better at this.

MALCOLM: How important do you think classroom briefing sessions are for student groups and how often should they be held?

MIKE: I realise that this sport is about flying, but structured training (which includes time in the classroom) is the name of the game here. As I have said many times before, if the student doesn't understand precisely what is about to be taught in the air and why it's being taught, everyone wastes their time and money; especially the student! If there are student glider pilots out there who don't understand training sessions and are getting fed up with training, please don't leave the sport. Leave the club instead and go somewhere that teaches you in a structured way. There are some great training clubs out there, and any clubs that don't care about this stuff will soon learn if all their students disappear!

MALCOLM: We've had some excellent classroom sessions at SGC, often when the weather's too bad for flying, and the relaxed atmosphere is good for student-instructor interactions. Needless to say this encourages lots of questions! But what's your view about student training in marginally flyable weather? Isn't it important for the student to get a "feel" for the weather?

MIKE: There will be some days that a pre-solo student won't learn a lot even though other club flying is going on. Rough days may even be a bit scary, even though a competent instructor can perhaps handle the conditions with ease. I think it's up to the student to decide, having discussed with an instructor if they want to experience such conditions. A student may not get much time on the controls though! Of course, the instructor had to experience those conditions him or herself in order to handle them correctly – it's a matter of timing as to when it's appropriate for a student. Discuss it with your local friendly instructor.

MALCOLM: Personally, I try to fly in exacting weather if I'm allowed to. It's made for some interesting cross-wind landings, but I'm slowly getting there! And I think it's actually good for instructor/pupil interactions.

MIKE: Yes, we have been talking a lot about the interaction between instructor and pupil. Instructors are not super-men or wonder-women. There is a well-known rule on the ground – you know the one – anyone,

whatever their experience can shout 'stop'. An element of this applies in the air. You can't stop, but if you don't like something, or see something that may be a hazard – mention it to your instructor. You are part of the crew of the glider and, as such, you might as well work with him or her to make the flight safe.

MALCOLM: When I ask friends who know nothing about gliding if they'd like to try it, the response invariably is "Oh no, I couldn't do that, it's too dangerous", or "I'd be too scared". And yet these are often the people who are prepared to take "fun" rides at theme parks! Personally, I find that gliding is the safest sport I've been involved in, and safety is taken very seriously.

MIKE: So, tell us then Malcolm – what are the less safe sports that you have been involved in?

MALCOLM: Well Mike, in my time I played rugby at school, have been a cross-country and track athlete, I rowed at University and played squash. I've injured myself in all of these sports, but thanks to the safety culture of gliding and the care taken by instructors, I've always felt safe.

SOMETIMES IT MAY BE PREFERABLE TO TAKE SOME TIME IN A MOTORGLIDER OR PERHAPS TAKE A HIGH AEROTOW TO CONSOLIDATE SOME UPPER AIR WORK



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



■ Derrick Roddie contacted *S&G* after reading the first part of *The process of learning* article (p34, June/July 2012). He said: "I thought it was a shame that Mike can't remember his first flight in a glider. It's a good job then, that I happen to have this photo of the event. The flight was during a Wolds task week in June 1981, when Mike was five years old. Bob Fox is the young chap in the front seat."

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TUGGIE GEORGE TOWS 10,000th

Borders GC tug pilot celebrates an aerotowing milestone

GEORGE Brown has recently clocked up his 10,000th aerotow since becoming a tug pilot at Borders Gliding Club in 1992. When news of this impressive milestone reached S&G, we asked (a reluctant!) George to share his story.

I JOINED Borders GC in November 1971 and trained both at Milfield and at Northumbria GC, going solo in a T-31 in July 1972 at Currock Hill.

With Milfield as my primary club from 1973, I have served on the committee as safety officer for 10 years, secretary for 23 years and tugmaster from 2005 to 2010. I also held an Ass Cat Instructor rating from 1975 to 2002. I've recently taken over, on a temporary(!) basis, as safety officer again because our elected officer in this post is working away from home and feels he cannot do justice to the post.

Because of my professional background, probably my most important job over the past 25 years on behalf of the club, and in terms of flight safety, is that of Military liaison officer. Due to the situation of Milfield in LFA 12, I keep the UK LFS (UK Low Flying System) at Wittering up to date with our flying programme and they, in turn, advise the RAF Squadrons flying at low level in our area of our activities.

When the club was short of tug pilots in 1991, I attained my PPL in a Super Cub in between the jets at Glasgow Airport and started tugging in 1992. I suppose it's taken quite a while to reach the 10,000th aerotow, but being rostered as an instructor and tug pilot, in addition to my other club commitments, meant I could not fly the tugs exclusively.

All this had to be fitted into my professional life as an Air Traffic Control officer – most of the time on shift work – and, for the eight years prior to retirement in 1995, working away at the Scottish ATCC at Prestwick six days out of every 10.



Joining the RAF as a regular in 1953, intending to fly, I gravitated to the Air Traffic Control branch and continued in that profession with NATS in its various guises throughout my “working” life.

A four-year sojourn with Hawker Siddeley on the Buccaneer development was most interesting. I then served at Aberdeen and Edinburgh airports, briefly, before a stint at the London ATCC. Posted to the Joint Air Traffic Control Radar Unit at Border Radar, RAF Boulmer (hence my association with Milfield), I remained there until the civil element moved on in 1988, by which time I was the Senior Civil ATCO. I completed my working life as an ATCO at ScOATCC retiring as a Watch Manager, actively controlling until my last day.

In my “spare time” I have spent 50 years with the Air Cadets, but not, I hasten to say, on the flying side. I have served as a civilian instructor, squadron commander, training officer and all the other menial tasks at which I have, throughout life, excelled!

George Brown with Super Cub at Borders Gliding Club, where he has recently reached his 10,000th aerotow milestone (Graham White)

■ I have just short of 1,800 gliding hours, although I accumulated a fairly high number of launches as an instructor at what was, for my first 12 years, a winch launch site. The balance was, thankfully, restored when we started aerotowing in 1982.

Over the years I have shared a K-6CR, a Skylark 2 and, for the past 32 years, a K-6E in which I completed my Silver C.

Sadly I have no 300km, 500km or any other gliding achievements to my credit. (Well, we think 10,000 aerotows is a pretty impressive achievement, George! - Ed)



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

Change of scene for conference

THIS year we have a new venue for the Club Management Conference. It's being held on Saturday 17 November at Warwick University, which will give us more space and is enabling us to widen the conference. The feel is very similar to Woodside, where we have been looked after so well for the last few years, so we're looking forward to the same level of relaxed attention to detail.

In addition to specific sessions for chairmen and treasurers, we'll be running sessions for CFIs too. As ever, the conference will cover the non-flying aspects of running a gliding club and is open to anyone involved with club management.

Although we have yet to determine the focus for each of the three strands of the conference, we will be bringing the latest news on legislative developments that we expect to affect clubs in the next year or so (including EASA Flight Crew Licensing). We will look at useful ways of retaining existing club members; listen to clubs sharing their experiences; and, of course, no club management conference would be complete without the latest news on safety. This is a day for dialogue, so if you have ideas about what we should be including, please email alison@gliding.co.uk

The lunch break is probably the most valuable part of the day and the lounge area is large, which should give you all plenty of space to talk, sorry, 'network'. There will be a lot to cram into the day and, as ever, we'll be working hard to ensure that the topics

covered are relevant to your work running gliding in the UK.

We'll be sending invitations and booking information to clubs in September, but please put the date in your diary and we look forward to seeing you there.

Age discrimination in the provision of services and public functions

The Government has published its response to the consultation on exceptions from an age discrimination ban in the provision of services and public functions. Changes to the age discrimination ban and the exceptions (which still require Parliamentary approval) will be effective from 1 October 2012. *'We are taking a proportionate approach. The new law will only prohibit harmful or unjustifiable treatment that results in genuinely unfair discrimination because of age. Harassment related to age will also be banned, as will victimisation resulting from complaints about discrimination or harassment. The ban on discrimination will not affect the many entirely justifiable instances of different treatment that do not cause any harm. It strikes the right balance between the interests of business and consumers.'*

What does this mean for gliding? No change (assuming that age discrimination is not currently a feature at any of our clubs), because the proposed exceptions allow for age-related measures that encourage participation. This means we can continue to charge preferential rates for older and younger people, and that we can continue to run the Juniors. Perhaps a Seniors' competition should be introduced too?



Changes to an age discrimination ban and exceptions allow for age-related measures that encourage participation. That means clubs can continue to charge preferential rates for older and younger people and we can continue to run the Juniors. Good news for the young pilots pictured here at a junior development training course earlier this year (Alison Randle)

PROTECTION OF FREEDOMS ACT AND CHANGES TO CRB PROCEDURES

THE Protection of Freedoms Act 2012 contains all of the new safeguarding and vetting requirements that will affect individuals in sport and recreation organisations who have contact with children and vulnerable adults. This legislation is now fixed and the new legal requirements are due to come into force in 2013. The Government are currently running information roadshows regarding the changes to be implemented and how agencies can adapt these changes to their specific needs.

The CRB (Criminal Records Bureau) and the ISA (Independent Safeguarding Authority) will be merged to

form the Disclosure and Barring Services which will issue all disclosures. The current CRB checking will remain in place until 31 August 2012. From 1 September 2012 the new arrangements will be put in place. Clear guidance will be provided to all Child Protection Officers before this time and the new procedures will be published on the BGA website under the Child Protection section.

If you have any queries regarding this new legislation and the CRB/ISA procedures please contact me, Karon Matten, on karon@gliding.co.uk or 07880547176.

Karon Matten, BGA Child Protection Lead

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'INSPIRATIONAL' AIR LEAGUE DAY

Bicester airfield was bustling with 230 launches and opportunities to share experience

SATURDAY 12 May 2012 was one of the most inspiring day's gliding I have ever had the privilege of experiencing, *writes Alison Randle*. With so many opportunities for a variety of flying, together with various scholarships and bursaries on offer, has there ever been a better time to be a junior?

Dave Watt, CFI at Windrushers,

commented: "It was a pretty extraordinary day and one of the busiest you will ever see at Bicester; something like 230 launches, a full grid launch, 20 or so motorglider flights, as well as 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."

**Scott Pendry, chairman, Air League
Leading Edge**

THE Flying Day is always an excellent way to get together and enjoy the common activity that unites us all – aviation. No matter what level of experience, an informal environment like the flying day is a great way to share insights and experience and is especially beneficial for the younger crowd wishing to pursue a career in aviation.

So many activities continue to attract

a stereo-typed caricature of previous generations; not so aviation. Whether you choose it as a career or as a recreational activity, aviation has the ability to bring together a disparate group of individuals with a common bond; a love of flying and the plethora of skills and competencies that are associated with it.

**Julia Robson, Basic Instructor
Windrushers GC**

MY AVIATION background is with the Air Cadets and, although I still instruct with them on the Vigilant motorglider, I also took up civilian gliding with Cambridge University Gliding Club and am now a Basic Instructor at Bicester.

I remember visiting Bicester a couple of years ago for the Air League flying day and having a most memorable soaring flight with an instructor. This year, it was a very different: I would be the one instructing and trying to ensure others went away with the same enthusiasm for gliding or flying as I have.

There were plenty of BI flights to be done and throughout the day the duty pilots, who did an excellent job of organising the flying programme, introduced me to a whole range of people to fly with.

It was interesting to talk to lots of people with different reasons for being there, but more importantly it was excellent to see them all enjoying themselves as much as I was. It was great to see such a variety of people there and I hope that young people continue to have plenty of opportunities and funding available to help them achieve their goals, just as I have had.



The informal environment of the Flying Day is a great way to share experiences (photos: Alison Randle)

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SCHOLARSHIP EXPERIENCE

OVER the Easter holidays, 18-year-old James Coughlin (pictured below) completed a gliding scholarship sponsored by the Royal Navy's Fleet Air Arm Officers Association. The aim of the scholarship was to give an insight to life as an officer in the Royal Navy, combined with gliding.

James says: "Together with five other scholarship winners from across the UK, I completed the training at Lee-On-Solent airfield, near Portsmouth, with our accommodation at *HMS Collingwood*. The week was a great experience. Gliding was an amazing sport to discover, despite the weather's best efforts, and I am very interested in pursuing it further.

"As a current pilot's licence holder, I thought the conversion from the Ikarus C-42 microlight to gliding would be relatively easy. I was mistaken. I found gliding to be much harder and require more planning in the air. Even getting the glider launched required maximum concentration.

"The weather was not always on our side, in spite of our being on the south coast of England. As the week progressed I was able to experience soaring and, with an instructor, I was able to stay airborne for over an hour.

"The week was not all about gliding; scholarship winners also had to complete a navigation exercise in a Piper PA-32-300. I also flew a 1930 Gipsy Moth bi-plane, which was like being trusted with a classic Rolls-Royce! I feel this was a terrific opportunity for me and have benefited greatly from it."



Matt Davis, British Junior Team Squad

After being introduced to gliding by my dad (Andy Davis), I've represented the British Junior Gliding Team and built up 500 hours in gliders. For me, the Air League Flying Day provided a unique opportunity for people from various backgrounds to meet up in a central location and share a common aviation interest.

We were lucky enough to be given a great soaring sky too, so the chance to have a go in an unfamiliar aircraft, such as the Fox or a Robin, is one that many took up and were highly appreciative of. It is not often that gliding and power can mix together so seamlessly and it is a credit to the organisers that it worked so well.

For us, one of the main purposes of the day was to continue our push with UK Junior Gliding. There is a lot of effort going on behind the scenes to reinvigorate the Junior community after what has been a couple of difficult years. We are trying hard to bring back a strong group of Juniors, through our UK Junior Gliding Facebook page and also by aiming to make the coming Junior Nationals at Lasham the most exciting competition in years. We have also started making short videos to promote Junior gliding in this country – search UK Junior Gliding TV on YouTube.

Jonathan Ryalls, University of Hertfordshire Aviation Society

HAVING started out as an Air Cadet, Jonathan now has 40hrs on power flying (including motorgliders) and has just started learning to glide.

When we arrived at what would be an unsociable hour (around 9am) for the normal

student, I was impressed to see gliders already up in the air. I brought 10 other students and, once off the minibus, everyone was ready to take to the air.

To begin with we started on the BGA's fantastic glider simulator – a good starter for some who have never stepped in a glider before, which included all 10 students!

Once I arrived at the launch point it was great to see young people getting to know each other and sharing their enthusiasm in aviation, in particular myself getting to know other University Gliding Clubs around the area. On the day, I managed to get 50 minutes air time in the DG-500. The best part had to be seeing the local C130 Hercules doing their airdrops across from Bicester and also catching some good thermals with Red Kites all around.

I also flew in a C172, in which myself and other Hertfordshire students took a short trip to Silverstone. It was great to get both powered flying and gliding on one day, which you would never normally experience all in one place. Another unusual highlight for me would have to be the 'café bus' at the launch point, where you could easily pick up a full breakfast just before you fly!

I see the future of aviation as a whole for young people as looking positive, for example the increasing number of scholarships available from professional bodies, such as the Air League, which offers young people the chance of learning to fly.

The event overall was a success in bringing young people together and sharing their interest in aviation. Hopefully it has sparked an interest in young people to continue flying and gliding.



This page clockwise from top:

The Spinnaker Tower in Portsmouth en route to the Isle of Wight, taken by Oxford's Paul Smith in Mosquito 277 on his recent day trip to the seaside

Cambridge's Adam Hannaford is this year's recipient of the Neville Anderson Young Pilot Award. He is seen here with Neville's wife, Anna Maria Della Salla (left), and sister Delphine De Groot

Albert Newberry receives the Yorkshire GC Chairman's Trophy. "Albert is a Full Cat Instructor and tug pilot who is always there to help," says Graham Evison. "He is one of the ones who keeps gliding going."

Seahawk GC's four keen club juniors relaxing before gliding commences: (l-r) Tom Luscombe, Shaun McBride, Jake Matthews and Jordan Richards (Tony Richards)

Alan Coatsworth explains to Dorset member what the pretty pictures mean on the weather station donated by Steve 'the weatherman' (Gerry Cox)

Facing page clockwise from top left

Testing the water - Dick Skinner (Essex & Suffolk's official submariner) testing the depth of the floods on the airfield (John Horne)

Wold's parachute expert Bill Dick celebrates his 70th with a cake made by instructor Patricia Ridger

2nd Braintree Air Scouts at the end of a long and very hot fun-filled weekend at Rattlesden

Norfolk's Josh Brownlow during his Gold height flight at Aboyne

Bowland Forest's K-13 ready for the start of the evening flying season (James Gerrie)



■ 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 email them to:
editor@sailplaneandgliding.co.uk
or upload to:
www.sailplaneandgliding.co.uk/dropbox



CLUB NEWS

BANBURY (HINTON IN THE HEDGES) **WWW.BANBURYGLIDING.COM** **5204355N 00118784W**

OUR EuroFOX tug kit has arrived. Roger Coombs and Peter Fincham are targeting completion in about 350 man-hours. Anyone want a very well sorted Pawnee 235hp? We have one 'seriously for sale', as well as a K-13. The club has had a successful recruiting drive for new members in the past few weeks, so a warm welcome to Richard Fenn, Alan McKinnon, Jon Gilbraith, Kamil Winczek, Tim Mano, and Jim Harmon. We've had a slow start to the cross-country season and our usual May ICL was postponed to July.

Robert Cronk

BANNERDOWN (RAF KEEVIL) **WWW.BANNERDOWN.CO.UK** **511858N 0020631W**

ACHIEVEMENTS are all around at Bannerdown. Our biggest and most successful exped to Portmoak saw members return with a Bronze leg, five Silver durations and six Gold heights. Straight from that we entered a turbulent task week, but despite challenging conditions, progress was made on painting the clubhouse! We did manage to prepare three members for their 50km, completing their Bronze and Cross-Country Endorsements, with a handful completing field landing checks. Hogs of the Week went to Bob Brain for 1hr 52 and Steve Tape for a mammoth 28.6km.

Debb Hackett and Ian Harris

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

AT our AGM we changed chairman with Mike Thorne taking over from Mark Hawkins after five years. Mark brought in some welcome changes and will continue be involved. We now have a number of university members solo, with Neil Hoddinott and Santiago Halle soloing earlier this year. We are losing our maintenance team and so rethinking how we manage our club gliders. Eddie Gunner and the team have been one of the mainstays of the club and we will miss them. The open day in May was successful in recruiting a number of members.

Jan Smith

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

BICESTER has been very busy, running seven days a week. Recent achievements include

Stefan Scibor (solo), Lee Hitchins (Cross-Country Endorsement) and Nick Kelly (Full Cat). The club itself is doing very well, adding a couple of new members a week at the moment. We have just completed a successful Air League day with 250 launches, both gliders and powered. We are running the Bicester Regionals from the 21-29 July; places are limited as pilots seek to avoid the restrictions. For more information about flying with us this summer please contact the office on 01869 252493 or visit the website.

Lee Hitchins

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

OUR first Spring Soaring Week was a great success, under the guidance of Tony Bartlett. Several members tasted the joy of cross-country soaring for the first time. Most of them made it back to the airfield! A new instructional video of how to carry out effective DIs of gliders has been completed by Martin Langford (CFI) and others. It has turned out to be very, very good and well worthwhile watching. We still have space over the summer to take refugees from those parts of England blighted by Olympic Airspace, but don't forget to book.

Robbie Robertson

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

AS I write, the expedition to Serres is already under way, with cloudbases reaching over 10,000ft. By the time this is being read, Booker's Olympic evacuation will be under way at Haddenham (Thame), thanks to the Upward Bound Trust and the airfield owners. Booker has a full schedule of events whilst we are there. Congratulations to new soloists Chris Burns, Zeljko Livanci and Duncan Sharp. Two days before the Diamond Jubilee, Booker Cadets Sam Gervais and Will Hilton received awards at the Air League annual reception in the presence of HRH Prince Philip Duke of Edinburgh.

Roger Neal

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

BORDERS had a brilliant May and June. Members of 611VGS joined us for a flying week and logged some great flights, with one member of 611, Adam White, taking our duty tug pilot George Brown over his 10,000th tow (see p49). Well done George from all of us. A

fantastic achievement. Ian Surley (Vega) also completed his Silver with his distance leg and Steve Marriot (DG-300) flew to Northumbria CG from Borders to retrieve the Hotspur trophy. Well done to both of you. Our next flying week is approaching and, with two members embarking on their BI courses, it's looking like a great summer.

Rich Abercrombie

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

WHAT a difference some good weather can make! Our field is currently dry, our ridges are working, the thermals are popping and everyone is walking around with a smile on their face as we busy ourselves with annual checks and clocking up our hours. Hot drinks and snacks are now available at the launch point, which is much appreciated by all and Glyn and Steve are finding out what life's like in the back seat, undertaking preliminary BI training. Good luck to them both and congratulations to Dan McCormack on being awarded an Air League cross-country gliding scholarship.

Keith Clarke

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

A GREAT soaring day started off the British Juniors team development training with Andy Davis, G Dale, Jon Meyer, Ayala Liran and Matt Cook in April. Andy was in action the next week with a series of coaching weeks that were 50/50 members and visitors. Alison Mulder did a 500km during the week. John McWilliam and Chris Rollings were running later courses. We had a visit from local MP, Neil Carmichael. Unfortunately not flyable, but he was made aware of the impact of the increasing regulation and has a trial lesson ticket. A peri track has been built at the field's east end for all traffic and the west end has been levelled with a new parking area, leaving more room for gridding. We were sad to hear of the death of member Sandy Rham.

Bernard Smyth

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

CONGRATULATIONS to Alan Odom who graduated from radio controlled aircraft by going solo in April. Cathy Lawrance, a long-standing member and one of our BIs

First solos for (left to right): Santiago Halle being congratulated by Colin Field at **The Park**; Booker's Duncan Sharp (left) and Chris Burns (Doug Hilton); Alan Odom of **Buckminster** with instructor Roger Hamilton; 16-year-old Nathan Evans, being congratulated by **Burn GC** chairman Tony Flannery



celebrated her 80th birthday in style by clocking up 1,000 hours gliding. We were delighted that one of our youngest members, Robbie Rizk, aged just 13, won the 'Beginners Trophy' with his magnificent performance in the National Glider Aerobatics Contest at the end of May (see p5). Another of our junior members, Chris Bowden, who is 16, also did well to come 4th in the Sports Class at the same competition.

Stuart Black

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

A SUCCESSFUL course was held in May, where Ian Myles completed his Silver with a 100km flight and Paul Fox, who flew the club's PW5 for the first time the previous week with a 1hr 30 flight, claimed another Cross-Country Endorsement leg with a 2hr 30 flight. He went on to claim Silver height and a Bronze leg. Congratulations to Nathan Evans, 16, for soloing in early June. Finally, we are sad to announce the death of Frank Thompson aged 92 (see obit p71). He was still flying solo when he was 89 and was the chairman masterminding the club's move from Doncaster to Burn.

Chris Cooper

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

WE enjoyed seeing old friends for Mayfest, including those from Portmoak, Bowland Forest, Parham and Welland. Our sincere thanks go to Maggie Lambert, Jean Ketelaar, Phil and Fiona Hawkins for their splendid catering; overworked tuggies Nick Norman and Roger Greig; and all who make our Mayfests so popular. With the glorious late spring weather, cross-country fever has struck Feshie for six! Moritz Korn flew to Easterton to re-claim the "Bomb". Nick Norman, Mike Morrison and Pete Smith flew 300km. Octoberfest this year runs from 29 Sept - 7 Oct. Want to sample the Feshie wave? Contact chris@cabrich.com

Chris Fiorentini

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

CONGRATULATIONS to Tim Williamson and Ray Ford for becoming our latest solo pilots, to Allan McLean for completing his Cross-Country Endorsement and to Adam Hannaford for bagging the Neville Anderson Young Pilot Award. Greg Monahan and Paul Ruskin have

passed their Assistant Instructor training. A sad goodbye to member Alan Vick, whose untimely death was a shock to all. A funny, modest character who always had a smile and never hesitated to pitch in and help around the club. He will be sorely missed. Finally, I'm delighted to announce the club has secured the lease on the airfield for another 25 years.

Jeremy Thomson

CHILTERN (RAF HALTON)
WWW.RAFGSA.ORG/CGC/
514733N 0004416W

CONGRATULATIONS to Tony Heritage and Joe Borucki on gaining their BI ratings. The rest of the club has, like everyone else, been suffering from the appalling weather, though seven members successfully escaped to Sisteron for two weeks. The weather there, while better than UK, was still below par for the time of year – people were still skiing on the lower slopes to the east of Grenoble!

Andrew Hyslop

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

MID-MAY saw us holding a club development week, when our CFI Mike Weston and other instructors encouraged less experienced pilots to progress in the cockpit and classroom. This was followed by a task week during Jubilee week, which was unfortunately marred by inclement weather. We don't have a serviceable tug on present so thanks to Gordon Burkett for bringing his, followed by a visit from the EuroFOX demonstrator. We have planning permission for a new hangar near the clubhouse for private owners and the club fleet. Our airspace is unaffected by the Olympics so we welcome visitors from others not so fortunate.

Frank Birlison

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

AT the time of writing, the weather has not been in sparkling form – particularly at the weekends – no doubt at some point it will improve? Kev Atkinson, now having retired fully, is busy organising mini expeditions from the club and, rumour has it, he had a nice little climb to over 11,000ft on one occasion. Mick Baker, Ian Mountain and Dave Pratt have syndicated a Grob 109B motorglider and get a lot of enjoyment from flying this throughout the year. Hopefully by the time this goes to print we

should have achieved goodly number of hours, kilometres and badge claims.

Zeb Zamo

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

WE said 2012 had the 'most promising start for a decade' and despite 'flaming' June, that's proved true. The highlight was the open day, when we flew over 70 trial lessons (it would have been more, but for several low passes from a Spitfire and Hurricane of the BBMF). Well done Phil Hardwick on his Silver distance and height flight to North Hill in April. In between the washouts we've had superb sea breeze convergence, wave to 6,000ft+ and some glorious soaring days. Congratulations to Richard Williamson on his Royal Aero Club bursary, and Matt Wiles on becoming a winch driver.

Martin Cropper

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

THE Easter open days attracted newcomers to Aboyne for trial lessons. May brought excellent thermal soaring conditions, permitting some notable cross-country flights: Bob Bromwich enjoyed an out-and-return to Ben Nevis so much, he did it again the next day. Seven-day aerotowing is now in place, with Gerry Marshall providing instructor coverage through the week. The 2012 UK Mountain Soaring Championships are at Aboyne, 2-8 September. Bookings are now being taken for the 2012 Wave Season. Fran Knowles has been producing a weekly blog on activities at Deeside, so visit our website.

Fred Pell

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

CONGRATULATIONS to Cathy Page and Alex Green (BIs), and Martin Francis (Silver distance). Also to Mark Wingham for his solo, and to ex-Sea Harrier pilot Andrew Neofytou for soloing on gliders. We welcome Alan Jolly and Mike Howie back as summer instructors, joined by Steve Daniels as winch driver. Our task week saw epic flights lasting many hours and lots of km on 16 May. The Beer Tray was collected from the Mynd by our chairman, only to be retrieved by their chairman a few days later.

Dave Salmon



(Left to right): **Cairngorm's** Anne Mawdsley with David Weekes having re-soloed; **Cambridge's** Julian Bane sends Tim Williamson solo on his 16th; **Dartmoor's** Phil Hardwick, who flew the club's first Silver distance of the year; Max Bond with instructor John Burrow following his solo at **North Hill**



DEVON AND SOMERSET (NORTH HILL) **WWW.DSGC.CO.UK**

505107N 0031639W

CONGRATULATIONS to Max Bond (solo a few months after his 16th Birthday). We have now been granted BGA Junior accreditation. A good number attended Ron John's cross-country task week with some excellent achievements, including Nick Harrison (Silver distance), Wyn Davies (Silver distance and five hours) with an out-and-return to The Park, and Tim Johns (Silver distance). Our recent open weekend was a great success with nearly 90 people flown, including a lady given a surprise for her 60th birthday.

Cheryl Smith

DORSET (EYRES FIELD)

WWW.DORSETGLIDINGCLUB.CO.UK/DGC
504233N 0021310W

PETER Molloy, Dave Poole and John Halford took their gliders to Sutton Bank for the Vintage Glider Meeting on the Diamond Jubilee weekend. Carol Marshall did a 177km flight in 3hr 10 and is off to Nympsfield for a cross-country coaching course. Guy Jarvis has retired as an instructor and we thank him for his input in preparing instructors for recent courses. Well done to Nathan Hanney, who now has his Ass Cat rating, to Tim Ambler on his Silver height, and Dave Poole on his Cross-Country Endorsement. Many thanks to John Halford for his work on repairing the old workshop.

Colin Weyman

EDENSOARING (SKELLING FARM)

WWW.EDENSOARING.CO.UK

544152N 0023506W

EDENSOARING is known for the long ridge where it's possible to get Silver distance and 100km diploma all in one flight. Frank Bradley has just done his 50km the hard way. From a remote start he flew from the North Lakes to the Duddon (see p36). This season we have a K-21, which is a great improvement for training and check flights. Visitors are very welcome and we are hoping for a good turn out for our student camp this August, so come and join us to fly in the most beautiful area of England with some of the best soaring. Diamond height anyone?

John Martindale

ESSEX (RIDGEWELL)

WWW.ESSEXGLIDING.ORG

520253N 0003330E

OUR season has started well with Colin Dance achieving solo status. Given the rain, Anglia

Gliding Club at Wattisham very kindly offered the use of hard runways until Ridgewell dries out. Our site has, of late, dried out sufficiently so we are now back once more at Ridgewell. We must thank all who worked so hard during the winter to maintain and get the field at Ridgewell ready for the season. Many thanks to you all. We welcome Daryl Cuthbert, a new cadet, to our band of aviators and wish him well in his gliding career with us.

Peter Perry

ESSEX & SUFFOLK (WORMINGFORD)

WWW.ESGC.CO.UK

515630N 0004723E

NEVER mind the waterlogged runway, our members never give up and we have three new solo pilots: Graham Banning, Jack Wade and Clive Stacey. Colin Woolf now has his Bronze, Adrian Tills his first 50km, and Ken Ward his 5-hours. Two new Ass Cat instructors are just awaiting the final formalities for their qualifications. Trailers are now being relocated on to our new area of grass and owners will be able to rig and tow-out without negotiating the bottle-neck by the hanger. The club task week was hampered by poor weather, but some good flights (and land-outs!) were achieved.

Dick Skinner

FENLAND (RAF MARHAM)

WWW.FENLANDGDC.CO.UK

523854N 0003302E

THE weather has meant only the club pundits have been able to stay airborne for long on a few days, with an occasional 200km. So, Olly Chubbock deserves special congratulations for completing his Silver Badge with a 50km cross-country. We welcome the return to the club of our officer in charge, Olly Peters, from his gliding expedition in the Chilean Andes. This he reported in the last S&G. A few weeks ago, we enjoyed a flying display arranged for the 100th anniversary of Two Squadron, which included a replica Bristol B2 biplane, Blades aerobatic team and a Spitfire PR.

John Doubleday

HEREFORDSHIRE (SHOBDON)

WWW.SHOBDOGLIDING.CO.UK

521429N 0025253W

CONGRATULATIONS to Ian Roper (solo) also to Simon Hodges, Bobbie Jones and Nigel Snee on their Silver heights, all achieved on the same day in the club Junior. We were delighted that David Corbett, who owned Shobdon Airfield until his death in 2010, was awarded

a posthumous Royal Aero Club Silver Medal. David was a life member and a good friend to the club. We hosted a group from the local youth centre and are preparing for the airfield open weekend later this month and for our task week in August – visitors welcome!

Diana King

KENT (CHALLOCK)

WWW.KENT-GLIDING-CLUB.CO.UK

51123N 0004950E

DESPITE the weather in May, Mike and Tony Moulang managed a 400km between showers in their Duo Discus and Kathryn Waller went solo. Bob Lloyd, stalwart of our vintage gliding club, celebrated his 75th Birthday on 30 May and our community flying programme has got off to a good start. We've been putting ourselves about a bit lately as part of our plan to increase membership, with static glider displays around Kent. The most recent was at the Folkestone Airshow, which generated a great deal of interest that we hope we can convert into new members.

Terry Webster

LAKES (WALNEY)

WWW.LAKESGC.CO.UK

570752N 0031549W

THE spring weather has been interesting when over-development and heavy rain inland has been replaced by thermals and wave near the coast. Lewis Alderson managed to exploit these conditions for his his first Bronze leg and nearly his Silver height. Debb and Willy Hackett were welcome visitors and we managed to find some decent wave for them. At our AGM we sadly accepted Rose Saunders' resignation as chairman after three years of hard work. Thank you Rose. Welcome to our new chairman Peter Craven. The rest of the committee were re-elected. We are looking forward to a safe, active season.

John Martindale

LASHAM GLIDING SOCIETY (LASHAM)

WWW.LASHAMGLIDING.CO.UK

51112N 0010155W

CONGRATULATIONS to Dave Masson for his RAeC award for weather forecasting, and to Tony Segal for the Bill Scull Safety Award. Marjorie Hobby ran a splendid guest evening in the spring, enabling visitors to see our activities in daylight. Zenon Marczynski is our interim general manager and Simon Hewitt brings professional expertise to the press officer's position. Colin Watt has introduced various

(Left to right): Colin Dance (right) with **Essex** CFI Dave Hertzberg after first solo (Bob Cassells); **Essex & Suffolk's** Graham Banning after solo, with John Bone; Olly Chubbock rings achievements bell at **Fenland**; **Herefordshire** achievers Simon Hodges, Nigel Snee, Bobbie Jones and Ian Roper



measures to minimise the risks associated with the Olympic airspace choke point west of Lasham and, at the time of writing, we're looking for windows between showers for the Regionals, Open Class and 15m Nationals.

Andy Jessett

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

CONGRATULATIONS to Krassi Shtereva (solo), and to Michael Marshall and John von Radowitz (Bronze). Graham Nixon is the latest member to achieve his RT licence. Thanks to the efforts of Chula Rupasinha and Paul Shrosbree we now have an excellent RT simulation and teaching facility. Our cross-country soaring course was extremely well attended. Summer activities continue with our 5th annual 'Girls Get Gliding' day, a second cross-country task week and evening flying groups. The aerobatics group fly on Wednesday evenings. We already have 50 entries for the Dunstable Regionals, so get in touch quickly if you want to join us!

Andrew Sampson

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

THANKS to the members who attended the club's 37th AGM and especially to Barry Hogarth, the chairman, who has attended them all! Tony Smith has been recently appointed as a director and executive committee member of the BGA. A Harryman and team speedily sourced and fitted a new generator. Thanks to the Wills Trust for the loan to help finance this. The re-laid track is a great improvement. Well deserved awards were presented to: Tom Evans – "Progress from ab-initio to Bronze"; Jeff Green (instructor) – "Support and encouragement to Pilots"; and Jack Tonkin (BI) – "Most meritorious flight" and 1st Novice's Place at the ICL.

J Patrick Haxell

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

CROSS-COUNTRY flying got off to a good start, thanks to a series of weekends organised by Andy Holmes. The 15-16 April was particularly successful, with at least 10 pilots taking part and covering a total of over 3,300km. Also in April, eight Mynd pilots enjoyed an expedition to Edensoaring. Being the highest gliding club in England, The Mynd was an ideal site for a

beacon to celebrate the Queen's Diamond Jubilee. The weather allowed memorable views of other distant beacons. Congratulations to Geoff Minshull and James Stevenson (solo) and to Laurent Couval and Emyr Owen (Silver distances).

Steven Gunn-Russell

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

NVGC's annual club dinner was held in April with awards going to: CFI's award – Tony Walker; Chairman's award – Alan Wyse; The Marshall Papworth award – Peter Valentine; The Life's a S**t award (The Toilet Seat) – Richard Aylesbury; and the Cross-Country Cup – John Young. Congratulations all! In May NVGC members descended en masse for the annual Edensoaring outing, where everyone had a great time. Unfortunately our June task week was hampered by the wet weather. However, it didn't stop Romo (Roger Morrisroe) celebrating his 74th birthday at the club in style, Happy birthday Romo from all of us!

Kerry Mertz

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

AT the time of writing we are mid-way through the Eastern Regionals week and have had two task days. We are hoping for good weather for the weekend to get more racing days for the comp. There is a great atmosphere at the club and morale has been high, despite the weather. Matt Vanston became our latest solo pilot in April and Chris Lawrence gained his Ass Cat rating following a successful course week held at the club. Belated congratulations also go to Josh Brownlow for gaining his Gold height at Aboyne last year. We're now on Twitter @norfolkgliding

Caroline Roberts

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

CONGRATULATIONS to Dave Barnfather on his first solo. Also to Colin Tweddell and Don Welsh for completing their BGA motorglider instructor ratings. On that note, our new motorglider has been highly utilised since arriving here. Everyone that has flown it has commented on how beneficial it has been. Dave Scott returned from the UK Overseas Competition at Ocana having learned lots. A "meteorology for

soaring" course I ran at the club recently was well attended and I think we all learnt about understanding the weather as glider pilots. For more on our 50th Anniversary celebrations in August, visit our website.

Rob Rose

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

OUR basic solo members are progressing well, with four passing their Bronze exams and Chris Jenks signed up for his Cross-Country Endorsement. Keith Lewis our new CFI briefed us on the main points from the CFI's conference, many of which brought pangs of alarm to the more senior members who pined for the "relaxed" approach of yesteryear, before EASA, while appreciating that the BGA is fighting hard to shield us from the excesses of these European policies. Thanks go to Ken Fixter and Tony Cummins who have given up many hours of their own time to get the club K-13 through its CofA.

Brian Williams

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

ON the one good day of the year so far, OGC went to the seaside, with Martin Hastings and Paul Smith reaching the Isle of Wight and home again. Lukasz and Kris both now have their two-hour flights and Kris has acquired a Dart 17WR to add to the private fleet. We welcome two refurbished instructors, Paul Wilford and Richard Hall, back into the fold. We've started our Friday night flying and BBQs and OGC flew the flag for gliding at the Abingdon Airshow, while Liisi, Neil and Steve helped 'person' the BGA stand at Aero Expo.

Paul Morrison

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

WE have a new chairman, Ant Halifax: thanks to Murray for his chairmanship over the past two years. The AGM was well attended, with no major changes. Four new pilots have purchased Pirat (CYD). The access road and hangar apron will be resurfaced to avoid us being ankle deep in mud. Thanks to all who helped paint the clubhouse, cut grass, tidy the airfield, etc. Sadly, the open day was washed out. Special thanks to Ross Morriss, for spending the day behind

(Left to right): **NVGC's** Tony Walker and Chris Armstrong at Edensoaring (Edward Jenkins); **Norfolk's** Matt Vanston after his first solo (John Roche-Kelly); Martin Jones after first solo at **Shenington**; Steve Channon after a first solo at **Staffordshire** Gliding Club



✂ the strimmer. Finally, the Marchetti flew to Portugal with Kev, Al and Roger – not a glider, but quite a trip.

Martyn Edgar

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

CONGRATULATIONS go to Andrea Cornish - Silver distance flight RAT-SUD-TIB. Also well done to Lorna Wilcox, who had her first solo soaring flight (1hr 32mins). The spell of bad weather and the height of the rape, witnessed weird and wonderful ways of transporting gliders to the launch point. This included Roger Davis taking his DG-1000 in its trailer, then rigging her at the end of the runway, followed by a four-hour jaunt to Gransden. Once again, we entertained scouts and leaders from the 2nd Braintree Air Scouts, with 32 flights.

Therese Smith

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

I MUST thank Irene Donald for selfless service to the club for almost 23 years. All visitors know Irene; she has been the first point of contact for many years and instrumental in helping the SGU become the second largest club in the UK. I wish her well at Fife Airport. The season's off to a great start and the visitors from Bannerdown left clutching claim forms. Other achievements include: Brian Thorburn, Hugh Cochrane (solo); Liam Vile [North Hill], Dave Brunton (Silver height); Peter Metcalf (Bronze & cross-country); Alan Gillanders, Thomas Berriman (50km); Peter Sharphouse (BGA Sport Aero Badge).

Ian Easson

SEAHAWK GLIDING CLUB
WWW.SEAHAWKGLIDING.CO.UK
500509N 051520W

FOUR members joined the last week of a three-week RINGS expedit to Le Blanc, in France. John Cockfield, Steve Moore and Jordan Richards were all aiming to complete their Silver badge flights and none were disappointed. Congratulations go to all three and our thanks to Chris Bryning, Daz Smith and Andy Farr, whose advice and guidance proved invaluable. We are once again struggling to cope with extensive runway work at Culdrose, although we do usually have access to the main runway. Thanks to sterling work by Sid

Hillman and Douglas Cormack, we now have additional locker space on our 'new' bus.

Tony Richards

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

MEMBERS have been making the most of every opportunity. Congratulations to Nigel for his 5-hours and Silver, Phil for his Gold distance, Jon for his two-hour Cross-Country Endorsement leg and Mark for re-soloing after a lay-off. We were pleased to greet our new full-flying member Kes (the Kestrel), recently spotted seeking drier accommodations inside the owl box. Work converting the bus winch continues, many thanks to all involved. Thanks also to the club members who recently did a spot of gardening to help remove some of the large weeds merrily colonising the airfield.

Claire Willson

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

MAY saw achievements as Martin Jones and Alex Nicholls soloed, while Richard Saint and Patrick Taylor re-soloed and Paul Mucha completed his Silver. Congratulations also to new Ass Cat Mick Fursedon. Colin Hales and his helpers have been getting the Falke and K-13 'DVX' back on line. The clubhouse is also being tidied for the regionals, with a full house expected. Later this year there will be a dedication ceremony for a new Whittle commemorative stone at the airfield. Thanks to Graham Paul and Alan Langlands for organising the Spring Soaring week – despite more ground school than planned, club members got the most out of the week.

Tessa Whiting

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

JOAN Cloke's Memorial day was well attended and concluded with a fine aerobatics display by Guy Westgate. On a superb gliding day, Will Greenwood and John Haigh flew Diamond distances, while cross-country tutor Paul Fritche added another 750km epic to his impressive record. Dick Dixon has become our new president and Duncan Stewart is acting CFI. A decision was taken to levy a small sum on our Air Experience flights, to raise money for local good causes. We were thus able to make a donation of £250 to the Sussex Air

Ambulance. After all, you never know when you might need them!

Peter J Holloway

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

INDOORS, we have enjoyed another annual prize presentation and very sociable dinner. The new airfield drainage is nearly complete and Simon France's Pegasus has finally emerged to join other newly arrived aircraft, club chairman Ian Kennedy's enormous 22m Kestrel and Richard Slater's Ventus. In the air, Scott Hazeldine's first solo flight included a perfect landing approach. Dave Allen flew his first cross-country to Bidford, collecting his Silver height and 5-hours in the process, and Sarah Reed has also been to Bidford and achieved her 5-hours on the same day. Chris Cole has achieved his Diamond goal.

Stuart Edinborough

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

BEFORE the early summer monsoon, we made some great progress with our students. Steve Channon and Bill Harrop joined last year and, despite having full-time jobs, they appeared regularly throughout the winter and were both rewarded with solo badges. John Reynolds and Rob Kemany have shown similar commitment and are now Bronze holders. Our policy of pre-booked concentrated coaching has paid off well. Looking at last year's annual stats in S&G, this represents double the national average. Welcome to Steven Horsley, Alison Walton-Smith and Bob Pye as new members. Bob is a BI so his skills will be put straight to work.

Neil Frost

STRATFORD ON AVON (SNITTERFIELD)
WWW.STRATFORDGLIDING.CO.UK
521406N 0014310W

FROM our best ever (since records began) start to the calendar year, weather wise things certainly took a turn for the worse from Easter when we began our seven-day operations. Hopefully, very soon our fortunes will have reversed. Despite the poor weather we managed the club's first 300km of the season in May – congratulations to Mike Coffee and Andy Balkwill, who set off within an hour of each other. Also on the flying front, we have one new Ass Cat instructor – congratulations

(Left to right): **The Gliding Centre's** Jon Cox with instructor Alan Smith after first solo; Howard Wimshurst sent solo by Steve Bonser at the **Upward Bound Trust**; **Wrekin's** Luke Cope was the 'first send' for Dave Vale (Jon Francis-Thelwell); **Yorkshire's** Diane Thomas with Albert Newbery after first solo



to Stephen Pearce, and two new Basic Instructors – congratulations to Dave Martin and Jamie Dickson.

Richard Maksymowicz

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

AT the time of writing, we are hoping for good weather for the 18m nationals in June. The Midland Regionals start on 4 August, followed on 25th by our task week. Congratulations to Russell Cheetham on winning the 18m class at the Wolf Hirth Hahnweide contest in Germany, and to Jon Cox on his first solo. Good luck to Bernard Fitchett, who will be flying in the Wenlock Olympics in July. Finally, our condolences to the wife and family of Peter Burgoyne – a family man, popular glider pilot, sailor and previous HB CFI – who recently lost his battle with cancer.

Tricia Pearson-Tietema

UPWARD BOUND TRUST (HADDENHAM)
WWW.UBT.ORG.UK
514635N 0005630W

CONGRATULATIONS to Howard Wimshurst, who went solo in May. Our vintage weekend at the start of May had a good turnout with two out of the three days being flyable. Peter Underwood took to the air in his Grunau Baby for the first time, along with many other beautiful gliders. A group expedition to Talgarth took place in April and, with the weather on our side this time, we amassed several cross-country flights and one landout. A good time was had by all.

Chris Scutt

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

CONGRATULATIONS to Paul Kellett, who completed his 50km and 1,000m height gain flying to Lasham. He also recently completed his NPPL and is now flying his syndicate's Grob 109. Our flying week and open weekend in May were very successful. We flew 25 newcomers, sold four multi-lesson packs, signed up one new member and got through dozens of hamburgers and hot dogs; many thanks to all who helped. The flying week was blessed with mostly flyable weather and everyone had a good time. By the time you read this we will be recovering from our Flying Pig Festival.

Jay Myrdal

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

FIRSTLY, many thanks to Strzeb for his hard work; he is now in pastures new. Our airstrip is finally drying out and the season is starting to look up. The nearby wind turbine planning application, initially rejected then approved at appeal, is being taken to the High Court by the National Trust and English Heritage. Our first flying week of 2012 has passed, curtailed a little by the weather, with our next in August. Members have been assisting on the BGA stand at Sywell Aero Expo, and on expeditions to Feshie, with a team being prepared for the National Two-Seater Comp at Pocklington.

Paul Porter

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

WE were sorry to learn of the death of Jan Norwici in May. Jan had come to England from Poland and was an early and very enthusiastic member of the club. Many members have fond memories of Jan's humour and kindness. Congratulations to new solo pilot Terry Vokes, and to David Carter and Robert Das, who re-soloed on a midweek course. The Inter-Club League has been beset by poor weather this year and unable to get any competition days before 4 June. Thanks to Dave Holborn for organising and reorganising it. A number of our pilots attended the Vale of York Safety Symposium.

Avelyn Dell

WREKIN (RAF COSFORD)
WWW.WREKINGLIDINGCLUB.CO.UK
523824N 0021820W

SILVER height for Darren Dowd, Cross-Country Endorsement flights for John Vincent and congratulations to Harry Collison on re-soloing in a glider a month after his first power solo. Several members took the opportunity to fly with Guy Westgate during the aerobatic training weekend, lead by Guy and our CFI Ian Gallagher, with Terry Walsh achieving his BGA standard aerobatics badge. Graham Elvis converted to single-seater in our lovely K-18 and Luke Cope went solo the day after his 16th birthday – the first 'send' for instructor Dave Vale. As I write, an Astir has just arrived to add to our single-seater fleet.

Ian Redstone

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

WYVERN members at all levels enjoyed competing in the Inter-Club League at The Park with tasks achieved on both days. We also received a warm welcome at North Hill despite the weather foiling any attempts at a task. Back at the club we have seen the long awaited return of our newly-repaired DG-1000, which has already been away to Sisteron. Tim Dutton and Alec Watt have formed a new syndicate, purchasing a Vega, which we look forward to seeing in the air in the next few weeks.

Sam Prin

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

TO encourage a further interest in gliding, our instructors can now take visitors aloft by winch as well as by aerotow. Club members attended a safety symposium at nearby RAF Linton-on-Ouse aimed at co-ordinating military and civilian flying in the Vale of York. Howard McDermott-Row has resumed instructing, gaining a motorglider instructor ticket. Simon Hawkin now has a Silver. Congratulations also to Richard Donnelly and Jim Baxter on receiving their Bronze certificates, and to John Fitzwilliam on his first solo. Any club adversely affected by airspace restrictions during the Olympics is invited fly from Rufforth.

Chris Brayne

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

DESPITE the rain, enthusiasm has not been dampened with three solos during May – Diane Thomas, Mike Cox and Ross Hume – all enjoying having no-one in the back telling them what to do, congratulations! David Latimer posted an outstanding flight – not quite the 750km he declared, but 660km is a wonderful achievement. An excellent entry for the National Vintage Rally was received. Thanks to everyone who manned the BGA simulator at the Great Yorkshire Show. Stratford and Shalbourne clubs enjoyed our fantastic facilities and Fleet. Why not come and join us for the new Open Skies Competition in August?

John and Sarah Marsh

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



Buckminster GC's long runways and freedom of airspace have made it the ideal venue for the UK National Glider Aerobatics Contest and the Saltby Open Aerobatics Contest

> CLUB FOCUS

BUCKMINSTER GC

AT A GLANCE

Membership:

Full: £380pa
Aerobatic: £180
17-21 (non-student): £70pa
Student: £0pa

Launch type:

Winch: £8
Aerotow (2000'): £32

Club fleet:

Robin (tug), Venture MG,
2 x Puchacz, K-21, Astir;
Pirat, K-8

Private gliders:

35 and 4 x MG

Instructors/Members:

30/120

Types of lift:

Thermal, occasional wave

Operates:

Every day (except
Christmas Day)

Contact:

Tel: 01476 860385 (office)
07769 955791 (airfield)
www.buckminstergc.co.uk

Long and Lat:

5249.43N 00042.52W

Radio: 129.975Mhz

BUCKMINSTER Gliding Club is based at Saltby airfield on the Lincolnshire/Leicestershire border. This year the club is celebrating its 40th Anniversary.

The airfield has a significant history; it was built for the RAF during World War II and was used by the United States Air Force in 1944 for troop carrying operations. Indeed, this is when glider operations from the airfield first began: C-47 Dakotas and C-53 Skytroopers towed Horsa and Waco gliders from Saltby to drop British and Polish paratroopers in Holland.

The club has been developed substantially during the past decade. A new members' hangar has been built that can accommodate up to 15 gliders and more land has been rented for rigging. The clubhouse has been completely refurbished and now offers a modern kitchen, bar, briefing area and a spacious ablutions block. A caravan and camping site is conveniently located adjacent to the clubhouse.

We have also recently acquired a Robin DR400 for towing which, in peak

times, is assisted by a privately-owned Robin.

Saltby is ideally situated for cross-country flying and, with the recent closure of the RAF stations at Cottesmore and Wittering, more airspace is now available to the south giving considerable freedom for tasking.

Undoubtedly, the club's facilities, the airfield's long concrete runways and freedom of airspace have been significant factors in the selection of Saltby as a venue of choice for aerobatics training and competitions. The club hosts both the annual UK National Glider Aerobatics Contest and the Saltby Open Aerobatics Contest. We also have an active vintage glider restoration group, who return old gliders to their former glory and fly them at vintage rallies across the country.

Buckminster Gliding Club is a Junior Gliding Centre and welcomes young members. Flying and aviation related educational opportunities are regularly provided to groups of scouts and ATC cadets. But whatever the age or aspiration, visitors are always welcome!

Stuart Black

IT'S OFF TO A FLYING START

Gems of the Vintage events calendar

IT ALL started with the wettest hose-pipe ban in history, **writes VGC Secretary Bruce Stephenson**. Yep, British weather is certainly a lottery these days; record temperatures and brilliant sunshine in February, and deep depressions and continuous days of rain in the summer!

But the Vintage season's kick-off hasn't been all that bad and Haddenham at least enjoyed some very acceptable flying weather for its annual rally to blow away the cobwebs (5-7 May). With a small gathering of early vintage gliders, pre-war examples included the lovely Kite 1 and the simply delectable Petrel – some of Slingsby's finest.

Other gliders included a lovely Skylark 3 belonging to Alan Pettitt and a bit of a rare Brit bird, the one and only Swales, which is owned by Rod Harris. Both of these gliders managed respectable flights of 1hr 50, and 2hrs 10 respectively on the Sunday, which proved to be the best day.

With the club also flying its fleet, the K-8 managed a best flight of 1hr 20min, with one of the K-13s managing 1hr 4mins.

Also present was the Grunau Baby, recently restored by Peter Underwood, which is now owned by Dave Bramwell at Haddenham. Surely one of the highlights was to see Peter still enjoying the air under his wing in one of his beloved gliders, when he sauntered aloft in the Grunau at the ripe old age of 84.

Peter didn't take the antediluvian prize however! That honour went to 91-year-old ex-WWII Halifax pilot John Herold. John flew the Halifax on many missions, including glider towing. John thoroughly enjoyed taking to the air again in the club's K-13 and says he looks forward to doing it all over again when he's 100!

With the Saturday evening BBQ up to its usual high standards, the gang at Haddenham yet again put on a fantastic welcome to all those pilots visiting this lovely and intimate site. It's no wonder

that this event is one of the gems of the Vintage calendar.

A few weeks later, the VGC National Rally was held at Yorkshire GC (2-10 June). The weather again proved to be a bit of a mixed bag. Set to begin over the Queen's 60th Anniversary, the opening of the rally on the Sunday was under leaden skies, but with an air of optimism.

Hadn't the gods listened to our pleas, or maybe it was the mourning of the absence of our dear friend, and YGC President, Moyra Johnson? In memory of Moyra, an RAF Tucano carried out a fly past over the "Bank", pulling up after his lone pass, signifying the passing of an era for the Yorkshire club.

Thankfully Monday dawned a good deal better and, with over 30 pilots gathered, soon everyone was airborne to enjoy the exquisite vistas, with numerous flights between 1-3 hours being recorded.

The following two days saw early clearances of the overnight rain, followed by ideal conditions for the older gliders, with some gentle soaring on the west and south ridges, boosted by some smooth thermic lift.

Weather for the rest of the country had been nothing short of diabolical, so the gods must have been at least smirking as we were blessed with three successive flying days before Mother Nature caught us up, leaving us with no further flying, but lots of time for nostalgic talk amongst friends and trips to numerous local attractions.

With the new Yorkshire GC President Nick Gaunt officially closing the rally on the Saturday, a large round of thanks were given to all those that helped to make the event enjoyable, with a special big cheer for Sutton Bank's long-suffering CFI Andy Parish.



■ With the stunning Bank as the location of one of the Jubilee Beacons to mark our esteemed Queen's 60-year reign, on the Monday evening over 1,000 members of the public gathered for an evening picnic, as they witnessed a magnificent sunset and equally impressive moonrise. This was followed by music by a country band in a marquee outside the clubhouse and was excellent publicity for both the club and the gliding movement alike.

■ An exhibition of artefacts and documents was laid on by a descendant of the local Addeyman family who were pioneers in the early days of aviation. Evidence of gliders flying from Sutton Bank many years earlier than first believed left us with the tantalising thought that the Yorkshire club may well celebrate 100 years of gliding before they imagined!



It's a nice day! Ready to go at the Haddenham Vintage Glider Rally 2012 (Liana Middleton)

■ Many thanks to Gayle Pearce, David Bramwell and Phil Lazenby for contributing towards this report.

REPORTING THE 'OOPS' MOMENT

Don Puttock looks at the value of recording 'unplanned events'

SOME gliding clubs are now beginning to recognise the value of introducing a local-level safety management system.

Introduction of this type of system can be difficult, in part because the benefits are not always obvious and trust needs time to develop.

This article lays out how the management of safety at club level can be developed and improved over time. The experiences are taken from the development of the Dartmoor Gliding Society safety management system.

It presents how glider pilots tend to think about safety management today, and the various ways we perceive the role of the club safety officer.

Central to the argument is the importance of sharing our experiences with others and reporting the apparently trivial "unplanned events". In so doing, we raise awareness and therefore we make our hobby safer. It will be shown that safety management in the UK is predominantly top-down and we need to

encourage the development of a bottom-up management system.

Safety management system (SMS) within British gliding

We are all familiar with the BGA formal safety management system. We report accidents and incidents to the BGA central office, these are reviewed and periodic safety flashes appear when the safety committee sees a trend occurring.

Unfortunately, incidents are seldom reported unless they are either the subject of an insurance claim or some brave soul (or club) is prepared to share a potentially embarrassing event.

On the basis that there are at least 10 incidents, or unplanned events, for each accident reported, the existing reporting system would struggle to handle the real volume of incidents if they were all reported.

It might be argued that club members and clubs themselves can become over-

reliant on the BGA keeping them safe simply because there is a formal SMS in place (see chart bottom left).

Informal safety management system at club level

How often have you had, or seen, that "oops" moment and thought how easily that deviation from plan might have had a serious outcome. No doubt you may have shared that experience with those around you and, who knows, you may have made others aware of the potential hazard.

This is in itself a perfectly valid informal safety management system (SMS) and is to be encouraged.

Wouldn't it be wonderful if we had a simple mechanism to ensure that every member of our club was made aware of the potential hazard you had just witnessed?

Of course, every club has its own unique set of hazards and these often appear in cycles. The timing of these cycles is unlikely to coincide across a wide range of clubs.

The role of the club safety officer (CSO)

All too often the club safety officer is seen as an "enforcer of rules" rather than a "manager and coach".

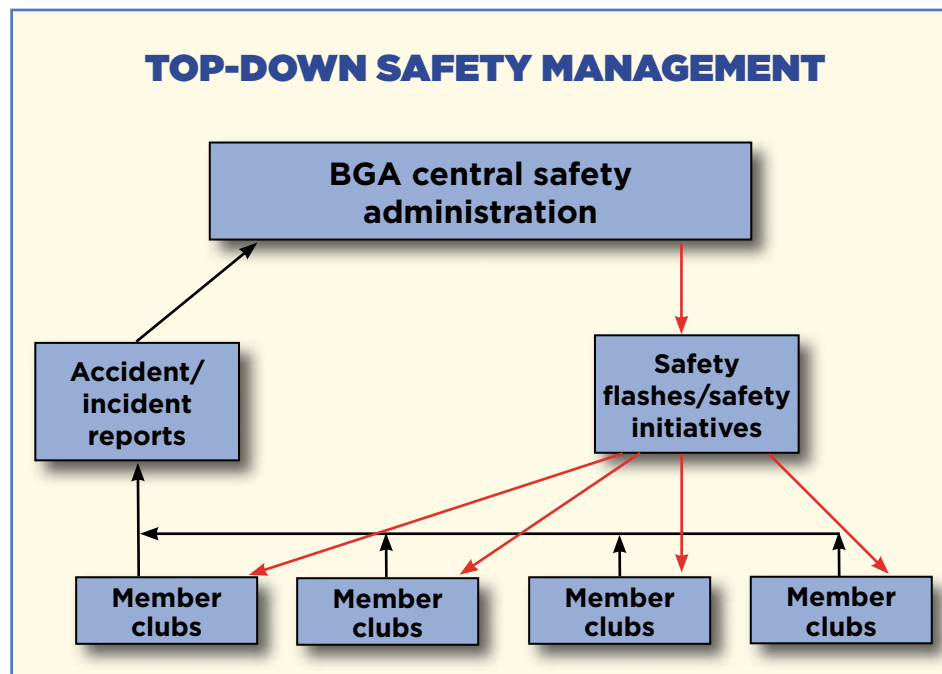
If you were to characterise your own CSO, would you see him as a policeman or a facilitator?

In truth, the CSO has an important management role and acts as a conduit to the BGA safety committee. His management role can and should be to make his club management aware of safety risks and trends before they become real accidents.

The CSO will always need the support of his own club members and relies heavily on the members keeping him informed of their concerns (see chart top right).

The role of incidents or unplanned events

I have chosen the phrase unplanned events (thanks to Jim Woolford, RNAS Culdrose),



because it better describes an incident as something that simply did not go according to plan.

The winch running out of fuel is an unplanned event, a cable break is not.

Not spotting another aircraft in circuit until late is an unplanned event. Failing to lock the canopy before take-off is an unplanned event. Observing a signaller fail to look before launching a glider is an unplanned event. Of course, the list is endless and most of the time the outcome is not serious.

An unplanned event is a warning mechanism; if we keep doing it we will eventually have an accident. Often these events are the result of some laxness or failure to follow a laid-down procedure.

In my experience, I would expect the average club to see about one event per 30 launches. Some will argue that there are at least 10 incidents per accident, but who knows when so many incidents go unreported?

Recently, I congratulated Dartmoor Gliding Society on actually having 85 internally reported incidents in one year. The reader might find the number rather high, but I promise you it is pretty average – DGS members are just becoming more honest.

The problem is finding simple ways of reporting and collating the data.

Safety Initiatives at work

Most glider pilots are aware of the safe winch launching initiative and the very good outcomes so far. Some will argue that the biggest single factor to its success was its raising of awareness amongst instructors and pilots at all levels.

Incident reporting, used well, does just that – it raises awareness to recent trends and events within the group.

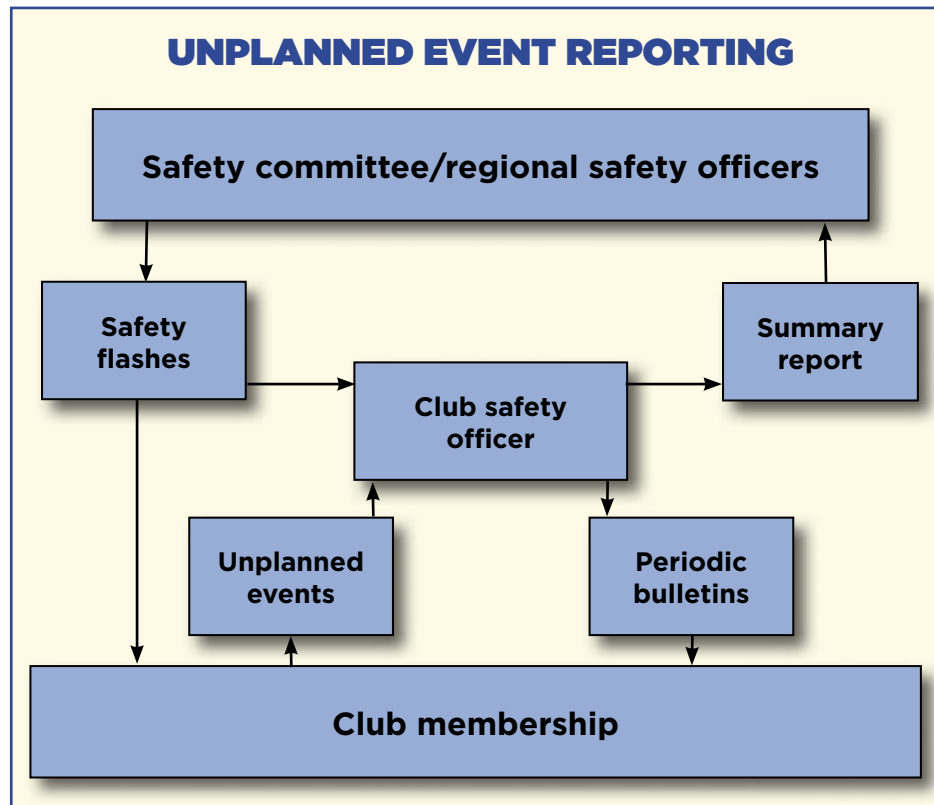
How to make incident reporting work in your club

● **Lead by example:**

I challenge any observant club member not to notice at least one event during the course of a flying day. Make a note of it and make sure the club safety officer gets the facts. A good starting point is the duty instructor, encourage them to get the ball rolling by making at least one report per duty day (yes he will find them!).

● **Encourage a non-judgmental culture:**

Report facts and not opinions and be impartial. Do not enter into discussions about individuals, concentrate on the event.



● **Have a simple reporting format:**

Date and time/description/name of person reporting

› Use a simple form or email the club safety officer.

› Have a just safety policy, ie no witch hunts.

› The reports should not be used as a political weapon.

› Maintain anonymity.

● **Keep a record:**

The club safety officer will accumulate data over a period of time. It can be helpful to create simple categories; ground handling, launching, circuits, winch or aerotow procedures, etc.

● **Allow the club safety officer to determine the need to report to the BGA:**

Not all incidents need to be reported, and “serious incident” can be rather subjective. The CSO has access to the regional safety officers and can refer to them if in any doubt.

● **Regular bulletins:**

By whatever means appropriate, provide a monthly feedback to the club members, along with a thank you for those that took part. The bulletins must be sanitised so individuals are spared the embarrassment, even if they agree otherwise.

● **Analysis – ask yourself:**

› Would better training have helped?

› Are the club rules sensible?

› Will pilot education help?

SOME WILL ARGUE THAT THERE ARE AT LEAST 10 INCIDENTS PER ACCIDENT, BUT WHO KNOWS WHEN SO MANY INCIDENTS GO UNREPORTED?



Don Puttock is a professional gliding instructor and CFI at Dartmoor Gliding Society with 4,000 hours gliding, PPL and MGIR

BGA accident/incident summaries

AIRCRAFT		Damage	Date, time	Place	PILOT		P1 hours
Ref	Type				Age	Injury	
21	Astir	minor	3/12/11, --	Yorkshire GC	--	none	not reported
Slight damage to undercarriage door. The pilot pulled the release at the top of the launch, but the cable remained attached as the pilot turned away. The winch driver cut the cable which then back released from the glider and fell close to a public footpath.							
24	Puchacz	minor	7/01/12, 14:40	Seahawk GC	71/74	none/none	2894
Minor undercarriage damage caused by heavy landing. During final approach, the instructor pointed out that the airspeed was low and, after some airbrake/elevator confusion, the P2 responded with a vigorous forward stick movement. The P1 was unable to take over in time to prevent a hard landing with some sideways drift.							
25	K-18	substantial	10/01/12, 13:15	Derby and Lancs GC	74	serious	147
Glider spun in at low level during rushed field landing attempt. The pilot had been soaring in wave when the cloud closed in and he had to descend through cloud, emerging from the bottom disorientated, low and with no obvious landing option. As the pilot turned towards a better landing area the glider stalled and started to spin, only completing a quarter of a turn before impacting, very fortunately, onto some trees on sloping ground bordering a stream. Although injured, the pilot was able to use his mobile to call for help.							
27	Ventus	substantial	1/01/12, 15:00 local	Benalla, Australia	--	serious	not reported
Glider crashed. No further details.							
29	SF 25c	substantial	15/01/12, 16:00	Midland GC	--	none	not reported
Prop strike during landing damaged the propellor and possibly the engine.							
32	K-13	substantial	2/01/12, 15:30	Black Mountains GC	63/53	none/none	622
Steel tubes cracked and bent around the skid attachment point after heavy landing. Heavy rain and a low sun obscured visibility late during the final approach into a strong and gusting wind. P1 took control and attempted the landing looking through the DV panel, but rounded out too high and stalled the glider at about 10ft agl. Control difficulties experienced by P2 on final approach thought to be due to P1 shadowing the controls.							
33	K-21	substantial	7/01/12, 14:30	London GC	73/35	none/minor	2187
Rear fuselage broken off and tailplane attachment damaged after the glider stalled and impacted the ground during a low level turn after a simulated winch launch failure. The P2 set up an approach after a 270° turn, but used little airbrake. The P1 took control to avoid overshooting the landing area, but by now the glider was too low to complete the turn into wind and the P1 stalled the glider in the turn with the airbrakes still out.							
37	Puchacz	minor	11/02/12, 15:30	Wolds GC	-/-	none/none	not reported
Bulkhead supporting nosewheel axle broken. The nosewheel had impacted on a depression in the snow-covered runway during the previous landing ground run.							
38	PIK 20	substantial	18/02/12, 11:35	Kent GC	51	none	1000
Pilot bailed out of glider at the top of the winch launch, about 900ft ato. Rain interrupted the pilot as he was rigging the tailplane and after taking shelter he returned, resumed his normal pre-flight routine and then towed to the launchpoint. After a fast launch the pilot realised that the elevator control was not attached.							
40	Astir	minor	21/02/12, 15:25	Highland GC	56	none	31
Undercarriage doors torn off as the wheel retracted after touching down. The lever appeared to be in the appropriate detent in the seat panel, but the locking mechanism was not fully engaged.							
42	Bocian	substantial	24/02/12, 14:00	Scottish GC	68	none	705
Fuselage snapped, wings broken and damage to nose after crashing into a field at the end of a turbulent, barely controlled approach. The pilot was attempting to reconnect with ridge lift from below the top of the ridge when he experienced considerable turbulence and sink as he crossed in front of a deep gully in the ridge, eventually being deposited into an unlandable field. The CFI points out that the pilot overlooked the opportunity to land in one of several landable fields in his attempts to remain in the air.							
44	K-13	substantial	23/03/12, -	Shenington GC	53/21	none/none	783
Late/incomplete roundout resulting in a heavy landing damaging the fuselage. The P2, on his 13th flight, was being talked through the landing, but when his roundout did not sufficiently reduce the glider's sink rate the instructor took over too late to prevent a hard landing on the nose and mainwheel.							

Incidents

20	SF25c	none	3/12/11, 10:30	-	-	-	-
TMG took off with the wheelbrakes on and spoilers fully extended. The low airtime pilot was accompanied by a more experienced motorglider pilot - both reported poor acceleration and slow climb rate.							
22	LS7	none	28/12/11, 15:30	-	-	-	-
Wheel-up landing. The low-time pilot had been told to land before an advancing rain shower but delayed his circuit until the rain reached the airfield. During the fast approach, in turbulence and rain into a crowded landing area, the pilot did not complete his pre-landing checks and forgot to lower the undercarriage.							
23	Astir	substantial	29/12/11, 12:20	-	-	-	-
Shattered perspex and damaged hinges after the canopy had been blown open by the wind. The glider was moved offline and left with the canopy closed, but unlatched.							
26	T-61	substantial	5/01/12, am	-	-	-	-
TMG damaged by strong winds. The tie downs were not strong enough to prevent the wind from turning the aircraft upside-down.							

BGA accident/incident summaries *continued*

AIRCRAFT Ref	Type	Damage	Date, time	Place	PILOT Age	Injury	P1 hours
Incidents							
28	K-13	none	10/12/11, --	-	-	-	-
Canopy came open during trial lesson launch. The pilot's pre-flight checks were inadequate.							
30	K-21	minor	15/01/12, 10:00	-	-	-	-
Crack in canopy around DV panel. The pilot performing the DI closed the canopy by pushing down on the open DV panel rather than the canopy frame.							
31	K-13	--	7/01/12, 13:20	-	-	-	-
Aerotow rope dropped onto open countryside. During an aerotow check flight, the P2 pulled the release and simultaneously started a climbing turn, without verifying that the rope had been released. The tug pilot felt the tail being lifted, saw the glider climbing and promptly released, co-incident with the glider P1 and P2 pulling the glider release again.							
34	DG 500	substantial	22/01/12, 13:00	-	-	-	-
Extensive damage to wing trailing edge and flap caused by impact with tow-out car. The wing dolly collapsed and the wingtip dug in, wrenching the towbar off the hitch and rotating the glider wing into the car.							
35	SF 25c	minor	25/01/12, 10:30	-	-	-	-
TMG canopy cracked after a gust of wind blew it shut. The pilot was cleaning the canopy at the time.							
36	Grob 102	none	26/01/12, 11:30	-	-	-	-
Undercarriage lever came away in the pilot's hand at the top of the launch. Unsure of whether the undercarriage was up or down, the pilot landed on a soft grass area, on the wheel.							
39	Discus	none	19/02/12, 11:30	-	-	-	-
Undercarriage jammed partially retracted - the pilot had to land with the wheel only partly down. Two of the three bolts holding the wheel halves together were later found to have sheared.							
41	Discus bT	none	5/02/12, 11:00	-	-	-	-
Turbo engine failed to start in flight. Investigation revealed that a syndicate partner had refuelled the aircraft straight from the Avgas pump rather than the pre-mixed two-stroke fuel and oil supply in the glider trailer.							
43	K-21	none	8/03/12, 14:25	-	-	-	-
Tug upset broke the aerotow weak link at the tug end. The glider pilot was trying to turn on the master switch at about 600ft ato; the tug pilot allowed the glider to pull the tug tail up to about a 40° nose down attitude with full back stick before reaching for the release.							

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 the listings on these pages. We would also like to publish (anonymously) 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. Turn to p69 to read the first of our "I learned about flying from that..." anonymous salutary tales.

The New LAK 17B FES



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Howard Torode

Flying Operations

Ted Norman

CAA SLMG Instructors and Examiners

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

Regional Gliding Examiners

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

Regional Safety Officers

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

Airworthiness Inspectors

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

Airworthiness Guidance

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

Accident Investigation

Chief Accident Investigator

Chris Heames

Other Information

Courses

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

Fees

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

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I LEARNED ABOUT FLYING FROM THAT...

A summary of the accident report would have read: “downwind approach, hit upwind airfield boundary wall”. So how did our anonymous contributor get themselves into that position?

WE WERE on a summer expedition to an unfamiliar site. I launched towards the west – with a competent, but pre-solo, P2 – to about 1,200ft into rapidly improving, soarable conditions. The wind was across the strip, at between 5-10kts, from the north as forecast.

During the launch I saw a couple of Buzzards thermalling behind us so, after release, I suggested that we turn back to contact their thermal. This was successful and after establishing in 2kts, I handed over to P2 so he could practise thermalling/turning. In this way we drifted SW away from the site, progressing through a number of thermals to over 3,000ft.

During the next 40 minutes, the weather became increasingly unstable – again as forecast – and frontal clouds and rain could be seen several miles away to the north, almost from horizon to horizon, racing towards the field. I pointed this out to P2, discussed with him the problems of landing in rain and, as he was to do the flying, we decided to land well before the rain arrived.

The wind had veered with height and strengthened, so we returned against a NE headwind. However, we had plenty of height in hand as we flew across the airfield to rejoin the circuit from the north. Stressing to P2 the possibility of wind changes that could be expected in frontal conditions, we orbited

the windsock at about 900ft to check the best landing direction before setting up our circuit.

The sock was rotating fitfully around the pole, but seemed to indicate that the predominant surface wind had remained the same as when we took off, northerly at no more than 10kts and about 90 degrees across the strip. We also spotted the winch being towed in, which I assumed was because of the threatened downpour.

P2 set up a circuit to land towards the west, but tended to cramp the downwind leg and had to be prompted on several occasions to widen the circuit. His diagonal leg was started early and his base leg was rather close.

Too close, too high

It was at this stage that I noticed we were drifting in towards the airfield and this was confirmed by a glance at the windsock, which was now pointing due east, in our planned landing direction, at about 10kts. Thus, we started an approach that was too close, too high, and now entirely downwind! I took over at once and, by judicious use of sideslip and full airbrake, managed to get the glider down, just short of the new “upwind” boundary.

We rolled up to the new launch point – yes, they had “changed ends” – where the Duty Instructor thought I had deliberately landed to save a retrieve from the middle of the field. I

did not say otherwise!

We got away with it, but had we been a tad higher, a tad closer, the wind a tad stronger, or the airfield a tad smaller, the outcome might have been different. So what were the lessons learned?

- Wind veers with height, so it was no surprise that the north wind became NE and hence drifted us SW in the thermals. However, the return to the airfield at over 2,000ft was so obviously against a strong headwind that we should have been more alert to a change in surface wind and strength.
- Although we were conscious of a potential wind change, and took measures accordingly, we should, throughout the circuit, have been more aware of wind direction.
- We assumed that the winch was being towed off the airfield because of the impending heavy rain, but a more careful check would have revealed the launch box being towed in the opposite direction, alerting us to the change of landing direction.
- There were several gliders airborne at the time – perhaps the club could have radioed them with the change of ends and increasing wind strength. When one visiting instructor realised what was happening, he called ‘his’ gliders that were airborne and warned them of the changed landing direction. Others may have noted that call, but a central call from the host club, with its local knowledge, could have ensured that all pilots were aware of the changing conditions.

It was little consolation that another instructor commented that he had found the return to the airfield from downwind a little marginal and that one glider was unable to get back and landed out. It was, however, a considerable relief that we landed before the airfield boundary wall!

Finally, WULF does not mention “wind”, because we all naturally take account of it, don’t we? As an instructor, I always emphasise the need to take account of wind during circuit planning, but students have told me that WULF is not always used. Perhaps we need to place more emphasis on pre-circuit checks, emphasise to students the dangers of landing downwind, and possibly the W in WULF should formally include “Wind”, as well as “Water”?

BGA Regional Safety Officers Needed!

The BGA is seeking volunteers to act as Regional Safety Officers (RSOs) to cover gliding clubs in North Wales, Lancashire, as well as central (Southern) England. Ideally you will be an experienced glider pilot with good communication skills who is capable of liaising with club Safety Officers, Chairmen & CFIs.

Training for the posts will be provided if required & the BGA will reimburse expenses incurred in the course of the RSOs duties.

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

Gliding Club of Victoria

The Gliding Club of Victoria is a great club for a gliding holiday, 2hrs from Melbourne, Australia. We are a welcoming and friendly club with many returning overseas pilots and family who enjoy the town and its surrounds.



Our facilities are world class and we cater to all levels of flying with an extensive fleet. Check us out at www.glidingclub.org.au or contact us at gliding@benalla.net.au.

BGA BADGES

No.	Pilot	Club (place of flight)	Date
DIAMOND BADGE			
777	Luke Dale	Lasham	15/04/2012

DIAMOND DISTANCE			
1-1175	Luke Dale	Lasham	15/04/2012
1-1176	Will Greenwood	Southdown	15/04/2012

DIAMOND GOAL			
2-2443	Stephen Tilling	Shropshire	15/04/2012
2-2444	John Hunt	Lasham	17/11/2010
		(Bloemfontein, SA)	
2-2445	Chris Cole	South Wales	12/05/2012
2-2446	Gerald Marshall	SGU	05/05/2012
2-2447	Anthony Chapman	Cotswold	12/05/2012
2-2448	Christopher Nicholson	Banbury	12/05/2012
2-2449	Jerry Newbery	Essex & Suffolk	16/05/2012
		(Nympsfield)	

FAI DIAMOND BADGE NO			
7303	Luke Dale	Lasham	24/05/2012

GOLD BADGE			
Albert Freeborn	Portsmouth Naval	27/10/2011	
Stephen Tilling	Shropshire	15/04/2012	
George Darby	Kent	15/04/2012	

GOLD DISTANCE			
Stephen Tilling	Shropshire	15/04/2012	
John Hunt	Lasham	17/11/2010	
	(Bloemfontein, SA)		
George Darby	Kent	15/04/2012	
Anthony Chapman	Cotswold	12/05/2012	
Christopher Nicholson	Banbury	12/05/2012	
Jerry Newbery	Essex & Suffolk	16/05/2012	
	(Nympsfield)		

GOLD HEIGHT			
Albert Freeborn	Portsmouth Naval	27/10/2011	
	(Aboyn)		

SILVER BADGE			
Oliver Chubcock	Fenland	14/04/2012	
Mike Lithgow	SGU	27/04/2012	
Martin Francis	Derby & Lancs	16/05/2012	
Stephen Moore	Seahawk	16/05/2012	
Paul Mucha	Shenington	12/05/2012	
Rebecca Ward	Cranwell	06/05/2012	
Michael Marshall	London	24/05/2012	
David Reddie	Derby & Lancs	06/05/2012	
Ian Surley	Borders	12/05/2012	
Simon Hawkin	York	06/05/2012	
Geoffrey Stinchcombe	Black Mountains	12/05/2012	
Timothy Willis	Heron	07/05/2012	
Nigel Burt	Shalbourne	12/05/2012	
Jordan Richards	Seahawk	16/05/2012	
Tremaine Callier	Lasham	16/05/2012	
Owen Bowler	Southdown	15/04/2012	

100K DIPLOMA P1			
Laurent Couval	Midland	15/04/2012	
Charles Donnelly	Southdown	16/05/2012	
Jordan Richards	Seahawk	16/05/2012	
	(Le Blanc - France)		
Tremaine Callier	Lasham	16/05/2012	

CROSS-COUNTRY ENDORSEMENT			
Robert Harris	Heron	16/04/2012	
Donald Sigournay	Essex	14/04/2012	
Ben Collins	Bath, Wilts & North Dorset	11/04/2012	

Jim Torode MBE (1922 - 2012)



GLIDER pilots and friends across the movement will be sad to hear that Jim Torode passed away on 3 May, 2012, after a short illness.

Jim first joined the Army Club at Lasham in the early 1950s, before the formation of a unified club on Lasham airfield. The freedom of silent flight, pervaded with its self-regulated, self-help mentality, was the perfect outlet for Jim's character. In 1955, he and three friends formed what is widely regarded as one of the first 'syndicate'-owned gliders - a Kite 1, purchased from Clwyd in North Wales and refurbished by themselves.

Through the late '50s, this same group, with Jim as BGA Senior Inspector, went on to own and refurbish a classic Slingsby Petrel, an Olympia and a Skylark. In 1957, with the Petrel, they won the 'League II' Firth Vickers trophy team prize at the Lasham Nationals.

During the '60s, Jim founded the RAE GC at Farnborough in the face of stiff resistance from establishment officials. He served as club chairman, CFI and, later, as president. Starting out with only a T-31, the club developed rapidly and continues to this day at Lasham as the Civil Service Gliding Club.

As a civil service scientist, Jim worked on radio, radar and sonar systems at RAE Farnborough. Always involved in practical trials on ships and aircraft, one of his subsequent roles was the acquisition and fitting out of a research ship for scientific trials. For this undertaking he received the MBE in 1983.

On his retirement in 1982, he refurbished Keith Chard's prototype Osprey, flying it at Farnborough and on single-handed expeditions to French Alps - still something of an adventure during the '80s. He was appreciated by locals and visitors alike. The French pilots called him 'the old pirate'. Jim's flying career ended in 1994, when he suffered a stroke which limited his coordination.

Jim's commitment and the work rate he applied to the things he believed important, were unrelenting. Gliding provided him with a life-long outlet for his freedom of expression, which was sustained to the very end of his life. To his final days he continued to gaze with longing at deep convection clouds.

He leaves his wife, Frances, son Howard and daughter Hilary and two grandchildren.

Howard Torode

Bernard Littler (1927-2012)

BERNIE was a Tynesider from South Shields, whose family moved south during the great depression of the 1930s. His father was offered a chance to become a nurseryman in Sidlesham West Sussex and this decided Bernie's future.

At the end of the war, Bernie spent some time in the Merchant Sevice and this ultimately took him to Canada. An opportunity arose to work on a hydro electric construction project, but unfortunately Bernie knew nothing about electricity. However, he had a friend who did and, adaptable as ever, he somehow managed to remain hidden long enough to gain the rudiments of a trade as an electrician.

He came home after three years, with money in the bank, and was able to start his own nursery. He became a founder member of the Chichester Rifle Club and also maintained his interest in the sea with a 26ft Westerley, which he kept at Emsworth. But then Bernie discovered gliding and, for the next 30-odd years, it became his ruling passion.

Having left school at the age of 14, he often said how much he envied those who had been to university. He need not have worried as he was one of the most well-read members of the club. When flying was over for the day, he would happily join in any discussion that was going, from astronomy to zoology.

Bernie's particular historical expertise was the First World War and he was a member of the Western Front Association. He loved to discuss current affairs, but his views on politicians are hardly repeatable here! If his solutions to political problems were sometimes outrageous, then they were always humorous and nearly always tongue in cheek.

Southdown, like all gliding clubs, needs its share of personalities that contribute to the flavour of life in the clubhouse. Sadly, we have lost too many of these veterans recently and our club is sadly diminished as a result. Bernie was among those whose personality enriched our community and whose passing leaves us the poorer.

Peter Holloway, Southdown GC

Joe Acreman (1931-2012)



"A LEGEND." "Always ready to help." "One of the nicest blokes ever." These are some of the comments posted when the news of Joe's death reached us and they really do sum up the tremendous warmth of feeling that we all had for Joe.

He was born in October 1931 and named Ronald Henry Charles Acreman. Nan Acreman had her own views, however, and called him Joseph, so Joe he has been ever since to everyone who knew him.

Known as a quiet man, Joe didn't like being the centre of attention or throwing his weight around. But behind those bright blue eyes was a spirit of fun and adventure, which he never lost. He remained a motorcyclist and fan of motorbike and car racing throughout his life.

For over 40 years, Joe's greatest hobby was flying. In particular, he loved gliding. He joined both the Devon & Somerset and Mendip Gliding Clubs, taking his first solo flight in 1969. Later he helped the clubs by passing on his experience as an instructor and becoming chairman and tugmaster at Devon & Somerset for several years.

Clearly, he loved nearly every minute he spent with those clubs and they were lucky to have his dedication. Needless to say, between being tugmaster and instructor and his own solo flying, he ran up an enormous number of flying hours.

Joe had always been a little accident prone. During his National Service in the Air Force, he tripped when leaping out of the back of a moving truck and broke both his arms and one of his legs, but he bounced back more determined than ever. Interestingly, he spent more than 12 months of his two-year National Service in hospital and recuperation, which must be record of some sort.

Perhaps it is not surprising then that his flying days also came with a few bumps and bruises. When on a gliding trip to Lancashire, a tractor ran over him breaking various bones including both his pelvic bones and sockets. These were injuries that would have floored a man in his 20s, let alone one of 68. To suffer and recover from this once was remarkable, but to do it all again a few years later after a flying accident was just unbelievable. All his bones so carefully put back together were once more shattered. Joe astonished

medical science and all of us by applying all that determination a second time to bounce back yet again.

Later in life Joe suffered various ailments, but these couldn't keep him down. Nothing could make him sit still, unless a Grand Prix was on the television, but eventually even Joe could not put off the final launch to the flying club in the sky. Yes, Joe now has wings of his own and is no doubt making full use of them.

Chris Heide (DSGC) and Richard Acreman (Son)

Frank Thompson (1919-2012)



FRANKIE Thompson was 92 years old last November. He died peacefully, holding his daughter Dawn's hand, on the 29 May 2012.

I last flew with him as a safety pilot a couple of months before his last birthday and found him to be just as accurate as he could have been. I did the launch and used the brakes on the approach and landing, Frankie did everything else. I did have to encourage him to fly a little faster in the K-21 though. Frankie was (in his day) a K-13 pilot and so was used to flying a little slower.

He joined the then Doncaster Gliding in May 1964 and was considered by his betters as a natural pilot. Only four years later, he became an instructor and carried on instructing until the age limit prevented him.

As Doncaster was in the Finningley MATZ, there was always potentially close contact between the two airfields. When Doncaster Gliding Club finally closed for the move to Burn, there was a celebration organised as a thank you to the RAF for their toleration of their close neighbour. The Group Captain (not named here) arrived in fully-uniformed splendour to accept a plaque to mark the occasion. Frankie sidled up to him and was heard to say: "Us lads with stripes from the war should stick together."

"Really, what rank were you?" came the question from the Group Captain.

"Army Corporal," was Frankie's answer, at which point the two of them separated and stayed apart for the rest of the event.

He was a long-standing chairman of our club, a tug pilot and an instructor. He and Bernard Wilson kept the Thursday crowd in line when it was aerotow only. They also used to do a one-week winch

course in the summer to remind everyone just what it was like to get airborne on the cheap. It was during his 11-year stint as chairman that the move from Doncaster to Burn airfield was completed, with all its complications and negotiations.

Frank served in the army during the war, travelling the length of Italy after the invasion in the south by the allied troops. After demobilisation, he returned to Doncaster and to his trade as a butcher, which he remained as until his wife Joan finally persuaded him to retire. Joan sadly died some years ago, but Frank soldiered on maintaining his independence almost until his death.

I know, and have been told by many other members of the Burn club, of many other stories. Some funny, some hilarious and some that cannot be printed (Frank did have his moments), but whatever was done by him on behalf of the club, he did with the absolute best of intentions of the club and its members.

I doubt anyone will forget him soon.

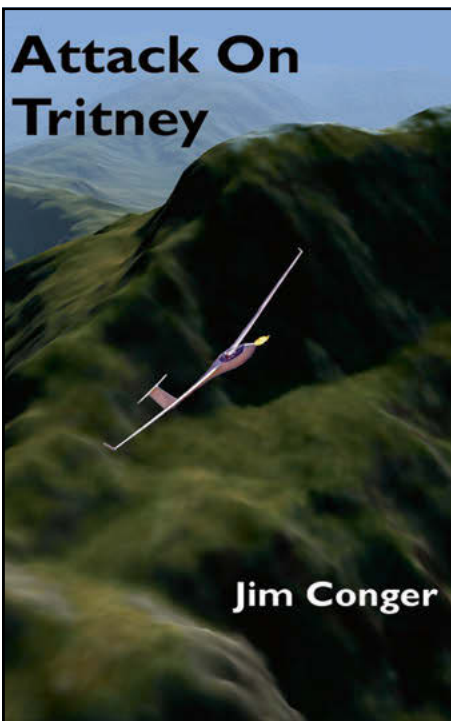
He is survived by his daughters Dawn and Sherry and his granddaughter Claire.

Tony Flannery, Burn GC

BGA BADGES *cont*

No.	Pilot	Club (place of flight)	Date
CROSS-COUNTRY ENDORSEMENT			
Tony Bownes	Lincolnshire	08/01/2011	
Alan Carter	Dartmoor	30/03/2012	
Christopher Adam	Kent	14/04/2012	
Peter Carter	Norfolk	22/04/2012	
John Cooke	Derby & Lancs	21/04/2012	
Simon Vardigans	Booker	21/04/2012	
David Harrison	Derby & Lancs	19/04/2012	
Trevor Watcham	Derby & Lancs	21/04/2012	
Emyr Owen	North Wales	11/04/2012	
Daniel Martinez-Oeckel	RAFGSA Chiltern	05/04/2012	
Nicholas Harrison	Devon & Somerset	27/04/2012	
Gary Richardson	Edensoaring/ Northumbria	21/04/2012	
Nigel Everett	Devon & Somerset	26/04/2012	
Wyn Davies	Devon & Somerset	12/05/2012	
Michael Marshall	London	24/04/2012	
James McGregor	Northumbria	12/05/2012	
Martin Garrish	Nene Valley	15/04/2012	
John Talbot	Darlington	12/05/2012	
Christophe Nutricy	Bristol & Glos	06/05/2012	
Allan Maclean	Cambridge	17/05/2012	
Colin Ellis	Derby & Lancs	19/05/2012	
David Poole	Dorset	19/05/2012	
Xin Zhu	Bannerdown RAFGSA	19/05/2012	
Peter Metcalf	SGU	25/05/2012	
Darren Smith	Lasham	11/05/2012	
Malcolm Morgan	Cambridge	08/05/2012	
Jonathon Butler	Bannerdown RAFGSA	04/06/2012	

Attack On Tritney



Jim Conger

In a future without oil, air combat is both silent and deadly.

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