

AIRSPACE: TWO SIDES OF THE SAME COIN

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Kevin Atkinson, the man behind the BGA's "Aim Higher" program has a lifetime of experience in aviation, but gliding is his first love. A former Chief Flying Instructor at the Humber Gliding Club, he has flown in

aeroplanes as diverse as the Tiger Moth and the Typhoon! His flying career started with the RAF in 1972, at the age of twenty, and ended in 1993.

Successful and efficient thermalling is the key to enjoying local soaring and also venturing further afield into the realms of cross-country flying. This book aims to help all glider pilots to develop these skills and to either improve their cross-country performances or to begin flying cross-country tasks.

Many glider pilots never make the transition from first solo to the exciting challenges of cross-country flying due to a lack of knowledge and

confidence. This book should help you to develop your thermalling skills and give you a building-block approach geared towards improving all aspects of your gliding so that you can confidently fly cross-country.

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FR300 has an integral battery with around 10 hours operation from one charge via a USB port.

Kevin Atkinson







CONTENTS

- **04** BGA NEWS
- **06** YOUR LETTERS
- **08** LICENSING UPDATE
- 10 AERO 2016 REPORT
- 22 GETTING BACK
- IN THE SADDLE
- 24 JUNIOR GLIDING: WINTER SERIES 4
- **26** GLIDING GALLERY
- 28 AIRSPACE: TWO
 SIDES OF SAME COIN
- 34 LLANBEDR: SHARED SKIES
- **44** MILITARY FLYING
- 48 INSTRUCTOR TRAINING
- 49 FIRST STEPS FOR COMMERCIAL PILOT

CLUB

- **46** TEEN EVENT
- **50** DEVELOPMENT NEWS
- **52** CLUB GALLERY
- **54** CLUB NEWS
- 60 CLUB FOCUS: LASHAM
- 62 VINTAGE GLIDING IN THE USA
- 66 CLUB ANNUAL STATISTICS
- 68 ACCIDENT/INCIDENT SUMMARIES
- **70** BGA BADGES
- **72** CLASSIFIEDS
- 74 INDEX TO ADVERTISERS

FEATURES

13 A RIGHT ROYAL PERFORMANCE

Almost four million viewers tuned in to watch *The One Show*'s 90th birthday tribute to the Queen, which featured the AeroSPARX pyro display

14 THE THERMALLING DAY

Tony Cronshaw asks coach **Kevin Atkinson** how to spot the clues to making the right decisions as the thermalling day unfolds

18 PILOT PROFILE: SEBASTIAN KAWA

S&G catches up with Polish pilot **Sebastian Kawa**, who is 10 times World Champion and number one in the FAI world rankings, just before his visit to UK gliding clubs

38 FALLING WITH (MORE) STYLE

Guy Westgate's flying display team, GliderFX, has recently returned from the United Arab Emirates, where they got to play with the world's best fliers from the elite Skydive Dubai wingsuit team

3.June

21.June

6 July

5 Aug

19 Aug

7 Sept



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COVER STORY

Derren Francis flies his Ventus 2cxa into the top 10 of the 18M Class at the 50th Hahnweide competition in Germany during May. Castle Teck is in the background. Silver medals were won by Howard Jones and Tim Scott. See page 4 (Max Kirschner)

DEADLINESAug/Sept 16

Articles, Letters, Club News: Display advertisements: Classifieds:

Oct/Nov 16 Articles, Letters, Club News: Display advertisements: Classifieds:

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- > Cairngorm's Nick Norman and Moritz Korn set a new club height record, reaching 28,500ft in an ASH 25 during a flight over the Cairngorms on 5 May.
- > From late summer (exact date not yet announced), the medical requirement for UK PPL and NPPL licence holders will be to meet the same standard as that required to hold a DVLA Group 1 Ordinary Driving Licence. Pilots will simply complete a form on the CAA website to declare that they meet the DVLA medical standard, removing the need for GP or AME involvement, although existing medical options will still remain available.
- Dooker GC was delighted to help when approached for ITV's What would be your miracle? In the episode shown on 5 May, viewers saw ex-marine Mac MacGregor achieve his wish to fly like the birds with an aerobatic flight at the club. Mac had received a brain implant to control a tremor so severe he could not pick up a cup and drink from it.
- > Congratulations to Paul Conran, winner of the 2016 Dan Smith Memorial Trophy, and to Graham Saw, who received the Silver medal.
- > Schleicher's Open Class self-launching ASH 30 Mi two-seater has been granted Type Certification, following on from EASA's Type Certification of the selflaunching ASG 32 in February. www.alexander-schleicher.de
- > Schempp-Hirth has started serial production on its new Ventus. www.schempp-hirth.com
- > Don't miss the 2016 Youth Aviation Day, which aims to 'inspire a generation'. It is being held on 12 June at Husbands Bosworth, Leicestershire, from 10am-4pm. www.youthaviation.co.uk
- A reminder that bids to host the 8th series of National Sailplane Grand Prix events and for the 8th World SGP final should be submitted by 1 June 2016. See: http://sgp.aero/about-sgp-racing/bid-forfuture-events
- > GASCo delivered four safety evenings in one night on 7 April, with simultaneous lectures at Lydd, Marham, Gransden Lodge and Cork, thanks to volunteer regional safety officers.

COMPETING WITH THE WORLD'S BEST

CONGRATULATIONS to Mike Young and Jon Gatfield, who came 4th and 5th respectively in the FAI Sailplane Grand Prix in Cerdanya, Spain (17-23 April). It was won by France's Louis Bouderlique.

The Grand Prix in Russia, 1-8 May, was won by Poland's Sebastian Kawa. As this issue goes to print, 10 times world gliding champion Sebastian is touring UK clubs, flying with members, giving evening lectures and answering questions on how we can become as good as him! (See pilot profile on pages 18-21 of this issue.)

Tim Milner won the Club Class at this year's FCC (Flight Challenge Cup) in Prievidza, Slovakia, 10-21 April. First place in the 15M Class went to Pavel Loužecký of the Czech Republic, while Poland's Karol Staryszak won the Mixed Class (with Sebastian Kawa in second place).

British pilots also achieved some great results against top international pilots in the 50th Hahnweide competition, which was held in southern Germany in early May. Howard Jones and Tim Scott finished second in the Standard and 15m Classes respectively, with Derren Francis (18m) and Andy and Matt Davis (20m Two-Seater) also achieving top 10 finishes.

The Standard Class was won by Michael Buchenthal (Germany), the 15M Class by Freddy Hein (Germany), the 18M Class by Simon Schröder (Germany), the Two-Seater Class by Martin Theisinger and Jürgen Koster (Germany), and the Open Class by Sweden's Jim Acketoft.



■ THE Guild of Aviation Artists' 46th Annual Summer Exhibition will be held at London's Mall Galleries from 19-23 July.

Last year's entries from glider pilot John Dimond included *After the Storm* (pictured above). John won the Margaret Kahn Trophy with his painting *Before the Storm - Schempp-Hirth Gö3 Minimoa*. (See *The art of gliding*, p7, Oct/Nov 15)

The prize was introduced last year with

the trophy, together with a £100 cash award and certificate, awarded for the best gliding related oil painting. The Margaret Kahn Trophy was sponsored by Wally Kahn to commemorate his wife's outstanding gliding and cloudscape paintings.

Admission to the exhibition is free and public opening times are 10am-5pm, with late opening until 8pm on the Thursday. www.gava.org.uk



■ ON 31 March, Herefordshire GC's Phil King finally achieved his dream of flying the first declared and completed 500km task starting and finishing in Wales, with all turning points in Wales.

Phil came very close on 19 March 2014, when a wave flight fell just 28km short of 500km (See *So close to a wave* dream, pages 44-46, Aug/Sept 14).

Phil took the photo above over the River Dee, near Corwen in North Wales, looking south-west. It shows Bala Lake with a snow-covered Cadair Idris in the distance. He was on the second leg of a 502km task from Shobdon in his LS8 nearing northern turning point, Cerrig.

Record number of bursaries

FIFTY bursaries have been awarded by the Royal Aero Club Trust. Of these, 16 went to glider pilots aged between 14 and 19 to advance their existing air sport qualifications. The Bramson Bursary was awarded to Suzie Lyell (Lasham), while Harry Wilson and Jonathan Bradford (both SGU) received MacRobert Trust Bursaries. Other recipients included Joel Hallewell (Wolds), Lewis Halliday (Staffordshire), Thomas Fern (Windrushers), Lucy Hadlow (Wyvern), Thomas Willson (RAFGSA), George Williams (Portsmouth Naval), Elijah Andrews (Bicester), Lewis Bond (York), David Edwards (Lasham), Sammy Venables (London), Nicholas Crittenden (London), Charlotte Weston (Cranwell), and Liam Bennett (London).

The Finest View

FLY over Sutton Bank and you will see this giant piece of land art on a corner of the airfield. The North York Moors National Park Authority's giant land art (nearly as large as the Kilburn White Horse) was created to mark stage three of this year's Tour de Yorkshire cycle race on 1 May. It was seen by an audience of around six million worldwide as the broadcasting helicopters covered one of the toughest ascents of the race.

DATES

NATIONALS, REGIONALS AND OTHERS

28/5-5/6/16

Club Class Nationals	Pocklington	28/5-5/6/16
20m multi-seat Class Nationals	Aston Down	18-26/6/16
Standard Class Nationals	Aston Down	18-26/6/16
Competition Enterprise	Shobdon	2-10/7/16
Wenlock Olympian Gliding Games	Long Mynd	9-16/7/16
FAI Sailplane Grand Prix	Bicester	9-17/7/16
34th World Gliding Champs	Pociunai, Lithuania	30/7-13/8/16
(Club, Standard and 20m mult	i-seat Class)	
Lasham Glide Pre-European	Lasham	30/7-7/8/16
15m Class Nationals	Lasham	30/7-7/8/16
Open Class Nationals	Lasham	30/7-7/8/16
18m Class Nationals	Tibenham	20-28/8/16
Junior Championship	Tibenham	20-28/8/16
Two-Seater Competition	Pocklington	21-28/8/16
UK Mountain Soaring Champs	Aboyne	4-10/9/16
34th World Gliding Champs	Benalla, Australia	8-21/1/17
(15m, 18m and Open Class)		

Pocklington

28/5-5/6/16

Glider aerobatic competitions

Aerobatic nationals	Saltby	26-29/5/16
World Glider Aerobatic Champs	Matkopuszta, Hungary 20-30/7/16	
Pocklington comp	Pocklingon	28-29/7/16
Saltby Open	Saltby	26-28/8/16

NORTHERN REGIONALS
12-18/6/16
COTSWOLD REGIONALS
18-26/6/16
SHENINGTON REGIONALS
25/6-3/7/16
BOOKER REGIONALS
2-10/7/16
BIDFORD REGIONALS
9-17/7/16
DUNSTABLE REGIONALS
30/7-7/8/16
HUS BOS CHALLENGE CUP
30/7-7/8/16
INTER-SERVICES REGIONALS
30/7-7/8/16 (Hus Bos)
BICESTER REGIONALS
13-21/8/16



The land art is called The Finest View

SAILPLANE &GLIDING



Andy DavisCompetition flying



Paul Whitehead 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).



Electric winch anyone?

THANK you to John Thomas for countering a view on climate change. (p7, April/May 2016). His question "Anyone for an electric winch?" got me doing some back of envelope (actually Post-it notes) calculations to see what would be involved. Very rough and ready, but here goes.

First - how much energy does a winch launch involve? As well as raising a glider to around 1,200ft, it also has to be accelerated to around 60kts. So to simplify, I took a 500kg glider raised as a dead weight to 2,000ft as a rough quantity, which gives around 3 megajoules per launch. Now, no one would want to install a power supply of around 200kW for the electric motor, so a battery system would seem necessary. So what would a smoothed power supply require? Let's say we need to launch every three minutes. That requires an average work rate of around 17kW, so the electricity supply may not be prohibitively expensive, although that must be provided to every winch position on the airfield.

Secondly – what size of battery would be required? I took a storage capacity of three launches as a minimum, which gives 10 megajoules. For 12V batteries, that translates into 23O Amp-hours, or the equivalent of only six car batteries, although clearly it would need traction batteries for power capacity and long life, but lead-acid would be sufficient as weight is not a problem.

Thirdly – my next thought was, could solar power help out? The power output of solar farms is a bit difficult to estimate, so I guessed at a conservative 50 watts per square meter, which would require 340 square meters of solar panels. Most airfields could accommodate that area fairly easily, as it can be any shape that would suit, eg one-metre panels along a 340-metre boundary fence. Indications are that a system of that size would cost around £50,000, but might result in negative cost for the launches averaged over a whole year. (That's income, by the way.)

I have no idea of the cost of the power supply cables, but maybe that could be reduced by a system of reverse pulleys to reduce the number of winch locations needed. Safety systems would also need to be worked out carefully.

So, Skylaunch, how about it? It would seem that a working system may be possible for not far north of £100,000, which is about one new glider's worth. Who will be first?

Iain Murdoch, Shenington GC

Mike Groves of Skylaunch replies: lain makes some good points, and interest has certainly increased in electric winches over the past 10 years due to the publicity of developments in electric car technology.

It is important to remember, however, that the duty cycle of glider launching is very different to other electric motor applications and requires batteries to be subjected to a rapid high load discharge every launch and then rapid recharge, which is a very aggressive duty cycle for them.

Skylaunch has in fact already designed, built and delivered a fully electric winch, which has been in operation in the South of France since 2011 (see our "Latest News" archive at www.skylaunch.com in the August and November 2011 entries).

The customer operating this winch reports that the launch characteristics of the Skylaunch electric winch are excellent due to the speed/torque control system.

Mechanically these winches are very simple, but electronically are much more complicated. Specification includes 50 high performance 12V dry cell batteries, a power supply on the airfield of 415V, with 50Amps required for the high capacity charging system.

With the layout of most airfields, two power supply points would be sufficient, and a long charge lead allows for some alterations in the winch position, unless the airfield layout and wind conditions mean



Skylaunch's fully electric winch has been in operation in France since 2011



Batteries are subjected to a rapid high load discharge every launch and then rapid recharge, which is a very aggressive duty cycle for them

that more winch positions are required.

As with our customer in the South of France, who received funding from the EDF electric company to install their power supply, if a customer can receive funding then it makes the electric winch option more viable economically over the less expensive combustion engine machines.

Of course, producing electricity from solar panels would be beneficial and would in the long term reduce costs for the operator.

Clubs who are unable to receive significant funding will always find that the petrol or LPG winch option is the most affordable to purchase, operate and maintain, even in the long term.

Traditionally, glider winches have been built using suitable large American V8 engines powered by petrol or LPG, as there is still no cheaper way to produce the correct power output and launch characteristics.

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 3 June

THE CHALLENGE OF SELF-TASKING

TONY Cronshaw asks how inevitable field landings are for the up-and-coming pilot (*Ask the Coach*, pp10-13, April/May 16) and Kevin Atkinson replies that a field landing means the pilot failed to interpret the weather ahead sufficiently early to divert to an alternative airfield or to return home.

This is generally a reasonable assessment. However, we have not forgotten a CFI at our club long ago, who lost all credibility after saying on the radio "it's not very good, I'm turning back" on a day when others pushed on and completed their tasks in increasingly good conditions. The up-and-coming pilot must develop a sense of judgement about when to abandon the next TP and when it is worth going on. That judgement will only come by occasionally getting it wrong and ending up in a field. Field landings are part of cross-country flying, especially for lower performance gliders or less experienced pilots. Consistently turning back or landing at an airfield can lead to a lack of soaring confidence.

In our own flying we are repeatedly surprised by how often the sky ahead looks hopeless and yet it is possible to keep going and eventually finish the task. This can be important for longer distances, when there is usually some part of the flight where the conditions are less good. If you don't risk landing in a field you may never learn what is possible. And if you land out very rarely you fail to develop competence and confidence in your field landing ability.

It's a matter of balance.

Diana and Phil King, Herefordshire GC

Kevin Atkinson replies: The ability to cope with a field landing is a part of cross-country flying training, just as spin recovery is a part of basic handling. The perfect response to both is to avoid the situations. (A superior pilot avoids such situations which require superior handling skills.)

The challenge of flying cross-country is always the weather and there is no reason why a pilot is not taught how to recognise the good from the bad, either from ground school studies, local soaring, dual cross-country, or on a solo cross-country accepting an early detour towards a safe airfield, just in case progress down track is not achievable.

There is a balance, of course, between the ability to continue to soar crosscountry and the ability to land safely in a field. However, the current statistics for scratch-free field landings in glass gliders is not to be ignored and it would seem eminently sensible to divert to a known safe landing site near track than push essentially through the same air mass to a farmer's field.

A climb or not whilst flying towards the detour is still an opportunity to gain cross-country experience. Perhaps your example is justified, but many volunteer CFIs these days don't have the opportunity to lead cross-countries, so you were lucky. But what if your press-on team resulted in uncompleted tasks and an accident? Confidence in both your cross-country flying and field landing ability would likely be destroyed.



ADDING A PRIVILEGE

ROM 8 April 2018, glider pilots, motor glider pilots and tug pilots will need an EASA licence to fly an EASA aircraft, writes BGA Chief Executive Pete Stratten. As described in a CAA Official Record Series exemption, until 7 April 2018 all the above pilots, including those who have converted to hold an EASA licence, can choose to operate as they always have done under national requirements, including BGA medical requirements.

We are continuing to use and train for the BGA gliding certificate and associated endorsements and ratings, whilst supporting pilots through the EASA licence conversion process ahead of April 2018. See *Laws and Rules* 'Gliding Certificate and Endorsements' on the BGA members' website for details. Meanwhile, you will be aware that we are working hard with colleagues across Europe to minimise the future impact of regulation on gliding.

In the April/May issue, we described how glider and motor glider pilots are directly supported through the licence conversion process by the BGA, with the aim of ensuring that all pilots will obtain in good time the EASA sailplane licence, ratings and certificates they wish to hold (*Converting to a licence*, p8, April/May 16).

There are a number of pilots who will be concerned that if they convert 'early', they might subsequently miss out on converting to the EASA equivalent of a BGA qualification achieved during the conversion period leading up to April 2018. For example, converting a recently-acquired BGA instructor rating to its EASA equivalent. That potential disincentive was raised with the CAA some time ago and an additional BGA process was agreed that utilises the existing licence conversion requirements.

In a nutshell, qualification under BGA/ national requirements as recognised within

the licence conversion process allows an SPL or LAPL(S) holder to add an EASA privilege to their existing licence by application to the BGA, which then makes a recommendation to the CAA.

For full details, including a step-by-step guide, please take a look at the 'Pilot Licence Conversion' webpage listed under 'Pilot Resources, Flying and Training' on the BGA members' website.

EASA sailplane instructor and examiner revalidation or renewal

There are a number of EASA sailplane licence holders out there with EASA instructor and examiner privileges, many of whom in addition to maintaining their BGA instructor rating (a requirement to instruct at a BGA club) wish to keep the EASA privileges valid during the extended period of conversion. The CAA has agreed that the BGA is best placed to facilitate EASA sailplane instructor and examiner revalidations and renewal applications.

At the time of writing, the specific detail had yet to be agreed between the CAA and the BGA. However, we expect to establish a simple, CAA approved process under which the BGA will check the facts and notify or make a recommendation to the CAA as required. Details will be published at 'Instructors' and 'Examiners', listed under 'Pilot Resources, Flying and Training' on the BGA members' website.

What does it cost?

The BGA has already budgeted for licence conversion costs and, as such during the conversion period, there is no BGA fee for facilitating additional privileges on an existing SPL or LAPL(S), or for facilitating EASA instructor or examiner revalidation. Where recommended by the BGA, the CAA fee for adding an EASA privilege is £38 payable via the BGA, and for any EASA instructor or examiner revalidation or renewal where a fee is applicable, the CAA fee is £50 payable via the BGA. Full details will be published on the BGA members' website.

We hope this information is helpful. For more information please check the website and, in particular, the licence conversion FAQs. If these don't answer your query, please feel free to contact the BGA office.





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■ Pipistrel's Taurus M self-launching twoseater glider was on display (above). During the show, Pipistrel received EASA Full Type Certification for its two-seat aircraft, Virus SW 121, which can now be used for aerotowing. Fly About Aviation, which already distributes the Apis Bee in the UK, now offers the Pipistrel Virus SW 121 as a 600kg MTOW light aircraft, complete and ready to fly. With a delivery time of about four months, the price is approximately €160,000. Fly About Aviation will also offer the Virus SW as a kit. www.pipistrel.si www.flyabout.co.uk

■ LX Navigation had a range of new products, including the new Colibri - a touch screen flight recorder due in the summer, a new Zeus graphical interface. the LX MOP - an IGC approved sensor for gliders equipped with Jet or electric engines, and the LX Flap sensor. www.lxnavigation.com www.lxavionics.co.uk



> AERO 2016 PHOTOGRAPHY BY SUSAN NEWBY/PAUL MORRISON

AERO 2016

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



The GP14 models have electric flaps and trimmers and electric retractable landing gear as options. CEO Jerzy Peszke says that GP Gliders boasts the longest list of optional extras. The price of the Pulse is €43,000, while the basic price of the Velo (including motor and rescue system) is

GP Gliders are designed and produced

by Peszke S.C. based in Krosno, Poland. Jerzy said that 12 orders have been placed to date, with the first deliveries due in June. G Dale is currently in discussion with GP Gliders with a view to becoming the UK distributor.

www.gpgliders.com



■ Lithuanian distributor Smart Aircraft Solutions was displaying Russian sailplane, the AC-4-115. It has a 12.6m wingspan and L/D of 32. The 115 in the model designation stands for the empty weight of 115 kilograms. It costs €18,600, but is unlikely to be seen in the UK. www.sasaircraft.lv



■ The first series production Twin Voyager S12 took centre stage on Stemme's stand. With a 25m wing span, the S12 has achieved a glide ratio of up to 53. The S12 also features water ballast capability, new avionics and a Dynon autopilot (which can be disconnected when soaring). It can taxi with wings folded and has a bigger luggage compartment compared with the S10. Stemme's S12, now type certified, will cost in the region of €300.000.

UK sales director Henrik Burkal confirmed that the S12 will will be shown for the first time in the UK at AeroExpo, Sywell, 1-3 July. Customer days at Gamston Airport (EGNE) are planned for 9-10 July. www.stemme-uk.com

■ There was also news at the show of Dr Reiner Stemme's future innovation – the SK10.e elfin range of side-by-side e-powered motorgliders.

www.rs-uas.com





- Skylaunch Managing Director Adam Greaves (above) with wife Janet at AERO. Pictured behind them is a Tost winch, fully re-engineered by Skylaunch, which was being delivered to Ballenstedter Aeroclub e.V. Germany by Mike Groves and Pete Salisbury. Three other German clubs had the benefit of a demonstration on the way. After delivery, Mike and Pete had two stops in Denmark, before a visit to the Belgium Air Cadets. They also visited Channel GC on the way down to Dover to look at improving their old winch. www.skylaunchuk.com
- Dacher Systems was looking for 100 pilots to test its four-in-one app SkyNayPro. A mobile box uses satellite technology and access via the app to flight planning, in-flight weather, navigation and collision warnings. A distress call function with a live tracking function has also been incorporated and SkyNavPro is compatible with all other FLARM devices. CEO Tiberius Dacher said: "We would like to have our product actively tested during use and who better than pilots, who have been waiting up to now for the networking of all the essential information for a flight?" Initial testing will be in Germany, but Tiberius said that the company plans to talk to other countries, including the UK, at the end of the year with a view to the product being available next year. www.skynavpro.com

> TURN TO P12 FOR MORE AERO NEWS





■ The theme for the VGC stand was Alexander Schleicher sailplanes, and featured examples of the K-1, K-2, K-3, K-4 (Rhönlerche) and K-6

The second secon

VGC members with a display of Alexander Schleicher gliders (Susan Newby)

■ FOR the seventh successive year the Vintage Glider Club was offered free exhibition space to showcase vintage gliding at AERO, writes VGC Chairman Jan Forster. On previous occasions, we have had a variety of different themes, recently for example flying wings, and Slingsby gliders. This year, gliders constructed by Alexander Schleicher were selected. The VGC stand was once more set up and organised by German VGC members, who assembled examples of the K-1, 2, 3, 4 (Rhönlerche) and K-6. The K-3 (from Holland) was left uncovered, so that the internal structure of its fittings and tubular steel fuselage was visible.

In the midst of all the varieties of sophisticated aircraft on display at the AERO, including not only conventional light aircraft, but also everything from gyro-copters, ultra-light aircraft, and electric powered motor gliders to the latest high performance sailplanes, there was once more the vintage glider display.

On visiting our stand, people started to behave differently. It seems that there is an emotional shift from the head to the heart! They circle the gliders, often more than once, take numerous photos and are unable to resist touching the gliders. They are captivated by the wood and fabric, the smell, the atmosphere and the history. This heritage, nurtured by the enthusiasts who keep them flying, is what makes vintage gliders so special!

At a time when modern gliding is becoming increasingly sophisticated and gliders correspondingly expensive, the average age of the active membership is rising and the sport is losing members. Involvement in vintage gliding offers an alternative, inexpensive and fascinating branch of aviation.

www.vintagegliderclub.org

SOMETHING OLD, SOMETHING NEW

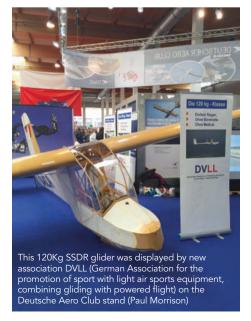
N MY fourth (or is it fifth?) annual April pilgrimage to AERO, writes Oxford GC Chairman Paul

Morrison, what is there new to say this year?

With 2016 being a 'non-gliding' year it was appreciably smaller than last year. However, small in AERO terms is relative as it was still significantly bigger than any other UK show. I hope that this is not an ominous omen, but what was usually 'the gliding hall' was home this year to FPV Drone Racing and, for anyone under 10 years of age, the speed with which they negotiated the course was simply staggering! Maybe there is a future gliding world champion in the making here?

There was the usual excellent display by our friends in the VGC. A colleague of mine commented that whether you consider these as 'vintage' depends on whether you have, or still are, flying these and whilst the K-6 may therefore be familiar to many, others such as the Kaiser K-1 are probably less so. In another hall, displaying the new Oratex fabric covering, was a very nice convertible K-8.

As far as new gliders go, this was mainly limited this year to the new 13m class with GP Gliders showing its new GP11 Pulse and GP14 SE Velo. With a wingspan of 13.4m and an L/D of 39 @ 85km/h and 45 @ 105km/h respectively (the latter being an electric self-launcher) is this the future? Elsewhere



there were the usual contingent of electric self-launchers. For me though, one of the most unusual gliders was the AC-4-115. This is a Russian-built 12.6m span quick-build kit glider being marketed by Lithuania-based Smart Aircraft Solutions. But with an L/D of 32 this may not be ideal for the UK climate.

Those who remember the Blanik with affection may be delighted to know that Czech Republic-based Blanik Aero are now producing new wings (under EASA AD No. 2011-01-0135R1) and, having sourced a batch of Blaniks from Europe (that have not been turned into BBQs!), are offering these as a new 3,000hr basic trainer. Who said you can't teach an old dog new tricks? Looking to the future, a model of Blanik's L23NG (New Generation) aluminium trainer was also on display, with a 16m laminar flow wing and a planned L/D of 31.

Looking decidedly vintage, but which apparently wasn't, was a stunning example of a new 120Kg SSDR glider although, again, I can't imagine this appearing at too many UK gliding clubs.

Turning now to the toys, Talos Avionics (who will be appearing at Aero Expo at Sywell in July) had an interesting electronic AEFIS (Aircraft Electronic Flight Information System), effectively a solid-state artificial horizon, on display. Comprising a small sensor unit, which can be installed out of sight, this relies on an App on the pilot's smartphone/tablet – an interesting integration of technologies. They also had a prototype unit for gliders, which included an electronic vario, although at the rumoured unit price this will need to seriously impress to be adopted, I feel.

All the big boys toys, such as those offered by Cessna and Piper were there, with numerous manufacturers all offering two-seat composite aircraft in various categories. Unfortunately, the majority of these are still not certified for use in the UK. Can someone please explain to me why this is so with EASA?

Finally, one area other than drones that had appreciably grown this year was that of electric/hybrid flight, with Siemens playing a major part in this. I look forward to AERO 2017, when the FPV drones will be displaced by gliders again I hope!



Above: The Sydney Charles sponsored AeroSPARX display for *The One Show* featured ground-based pyro for the first time (Richard Davies)
Right: Grob looping with pyro captured by Paul Johnson/Flightline UK

A RIGHT ROYAL PERFORMANCE

UY Westgate and Tim Dews started the AeroSPARX display team last year. Guy saw the potential of the Grob 109b, with a proven night capability for a pyro display combined with the convenience of an engine, elegance of an 18m glider wing and two seats to share the flying.

Tim brought years of technical knowledge to the team, as the founder of the country's premier Grob 109 repair and service centre, Airborne Composites.

The first year of AeroSPARX proved very successful, with over 20 displays across six countries.

The team had been in talks with *The One Show* production team for some months about flying with a BBC presenter, so when they asked if AeroSPARX could display for the show's 90th birthday tribute to the Queen, it seemed a perfect fit.

The display was performed at Lee on Solent in March, and a massive thanks must go to everybody at PNGC, who not only helped on the day, but kept the filming a secret until the Queen's birthday on 21 April.

The hour-long *The One Show* was devoted to HRH's birthday celebrations, including

lighting more than 900 beacons up and down the country, so the flying fireworks were a very natural progression. The show went out live and, as the programme producers were unsure of the exact timings, the decision to run the display video tape was made at the very last minute. As a result, 3.93 million people watched the display, apparently including the Queen herself! Happy birthday, Ma'am!



Below: Guy Westgate (left) and Tim Dews started the AeroSPARX display team last year (Sydney Charles Aviation Services)



Aerotow helps the Duo Discus connect with lift above 2,000ft and start the task early (Susan Newby)

Tony Cronshaw asks coach Kevin Atkinson to explain the twists and turns that nature puts into the soaring day - and how to spot the clues to making the right decisions as the day unfolds

T'S A lovely sunny morning and the airfield is a hive of activity with people rigging and preparing their machines, gliders being towed out, gaggles of pilots in animated conversation, heads swivelling towards the sky.

With a forecast for a promising crosscountry day, all of this activity is predictable. What is less predictable, perhaps totally unpredictable, is what the day is actually going to deliver.

TONY: As we look up at the morning sky looking for clues to how the day might turn out, what specifically should we look for?

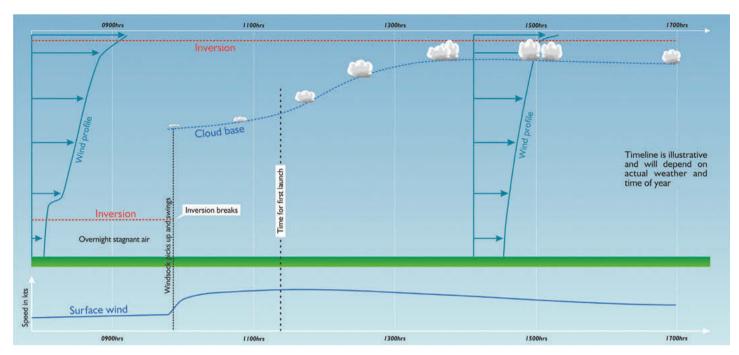
KEVIN: There will be clues in the sky, as well as other clues on the ground. But before you can interpret these clues, you need to be aware of the underlying physics driving the soaring day.

Firstly, are you aware of the weather

systems transiting your area? No doubt you looked at the weather forecast and concluded it would be a nice day, but did you look at the wider context [1] of nearby weather fronts, isobar curvature, pressure rising (or falling!) and wind speed trends? Armed with that information, you will be in a much stronger position to interpret clues.

Secondly, remember that the physics of the air depends not only on the weather systems, but on the diurnal cycle, ie the daily cycle of the sun rising higher in the sky. The diurnal cycle superimposes itself on the underlying weather, adding energy and forces into the air. There will be clues to where we are in that cycle. The trained eye can spot the meaning of a small cloud early in the day: Does it mean the day is starting early, or is it a warning that the day will overdevelop?

TONY: How does the diurnal cycle impact



soaring conditions?

KEVIN: Let's look at a simplified model (figure above). Firstly note how cloudbase starts relatively low in the morning then rises quickly as the sun gets to work.

Secondly, note how the surface winds die down in the overnight period when there is little mixing of the surface air with the upper winds. This produces a layer of relatively stagnant air near the surface capped by an inversion. In the early morning we observe a light surface wind, but this is suddenly transformed when the sun's heat begins to produce convection, mixing the lower air with the air above. We see the surface wind pick up as indicated by the windsock.

Solar influence then continues to strengthen the lower winds in the middle of the day. We often see wind speeds peaking in the early afternoon, then subsiding again in the late afternoon when thermic activity dies down. You will often see this pattern in the XCweather.co.uk wind forecasts.

TONY: I remember feeling rather annoyed at this when I was less experienced at flying in a breeze, because the wind always seemed to build up just when I was preparing to launch. By the way, have you ever seen how this mechanism is interrupted during an eclipse of the sun? As the shadow of the eclipse falls, the wind drops quickly and, in the quiet of the false dusk, birds start singing their roosting songs!

KEVIN: And we hear the sound of gliders landing and being de-rigged, I suppose!

TONY: Sorry, I digress! You were explaining about the diurnal effects.

KEVIN: When we see the windsock waking up, this is our first clue that the thermal day is starting. If we look carefully, we might also see the wind direction has changed, perhaps in response to a nearby thermal, or to the air generally mixing. If you missed this,

then another clue lies at your feet. If the dew on the grass has dried, this is another signal that thermal air movements have started.

TONY: This is when we see the first wisps appearing in an otherwise clear blue sky and very soon the first cumulus.

KEVIN: But be careful not to launch too early! Wisps dying quickly, or a couple of cumulus in the sky, mean it will be nearly impossible to stay up. Even seeing one really good cumulus isn't enough. We should wait

until we see some structure in the sky, enough cu to see that the thermals are close enough together and well enough developed to be able to try a few (two from a winch launch), before a landing back home is forced on us. A quick check of the surface air temperature and the forecast temperature at 2,000ft will confirm if the lowest inversion has fully broken.

TONY: We sometimes see a sky with cu \Rightarrow

Above: Diurnal cycle drives cloud formation, cloud base and wind strength (Steve Longland)

Below: first wisps appearing in otherwise clear blue sky. Be careful not to launch too early (Kevin Atkinson)



IF THE DEW ON THE GRASS HAS DRIED, THIS IS ANOTHER SIGNAL THAT THERMAL AIR MOVEMENTS HAVE STARTED

> SAILPLANE & GLIDING JUNE/JULY 16

■ Kevin's book *Gliding in Lift* and *G-SINK* is available at www.bgashop.co.uk or direct from kratkinson@yahoo.com



Kevin Atkinson is the club coach lead for the BGA Aim Higher initiative (www.gliding. co.uk/bgainfo/aimhigher. htm). He started gliding at age 13 at Ouse GC (now York), flying his first solo on his 16th. Kevin has over 3,500 hours gliding, including competing in UK national and regional competitions. He also has more than 7,500 military jet hours (Tiger Moths to Typhoon)



Early thermal wisps reveal the shape of the normally invisible toroidal vortex (Kevin Atkinson)

 $\not \supseteq$ very early, eg at 9-10am. Is this a good sign?

KEVIN: Generally not, but it might be: To really answer the question we need to know more about the air mass: Is the RH (relative humidity) a bit too high? In which case cloud is going to build up quickly and leave us with a useless overcast sky by late morning. Or is the RH OK and the cu has developed due to the long summer days when the sun has been up and shining long enough to get convection started very early?

Such a day could be a 500km day or a record breaking day.

TONY: Is it worth consulting a forecasting tool such as MeteoSim that maps RH?

KEVIN: RH data is available for Met
Office subscription users, including the
RAF. Knowing the RH of the air mass is
an advantage because RH is a very good
predictor of the amount of cloud cover or
the day turning blue. However, don't worry
if you don't have access to this data because
the forecasts that we usually use (RASP, BBC,
Met Office, etc) take RH into account when
predicting cloud amounts – with a margin of
error admittedly.

TONY: Coming back to the question of launching, what guidance would you offer on the decision to launch by aerotow or by winch? And the timing?

KEVIN: Full of water, then it has to be an aerotow. If early then to 3,000ft or cloudbase, or pull off if you feel convinced that you have flown through a strong thermal, but rarely before 2,000ft. The short grass, including the soil surface, has to be dry or the surface wind has increased a little and windsock fluttering into different directions as thermals influence the surface wind. Another clue is seeing birds of prey soaring at circuit height.

When to launch also depends on the length of task. A long distance task means an early launch and the first track flown carefully (not fast) downwind to make progress in the weaker conditions using a helpful tailwind.

Alternatively, if planning a shorter task in a small weather window, or a fast task, we can afford the luxury of waiting until thermals strengthen before launching. We can then fly upwind if we choose, which



could be a good option if conditions are expected to deteriorate due to an approaching front.

TONY: What do the wind profiles in the figure on page 15 mean for the soaring flight ahead?

KEVIN: The wind profiles shown remind us that the wind will strengthen and veer (but sometimes back) at cruising heights compared with the lower winds. Also, if upper level shear is present, sink will be blown predominantly on one side of clouds or streets [2]. It's really important to be aware of this to make best on-track progress and avoid horrible areas of sink. Remember that all good cloud eventually turns bad! In other words, if the cloud is simply decaying, its moisture droplets are evaporating and creating lots of sink and no lift.

TONY: Finally, given we're looking forward to a sunny day, what does that mean in terms of creature comforts?

KEVIN: Don't forget your hat, sun cream, pee kit and sunglasses. And water and food, but not too sugary: We want to keep our blood sugar on an even keel so that the brain stays alert.

TONY: Catching a few hours of sun out on the airfield may not sound much of an



Full of water it has to be an aerotow – Pawnee and DG-505 (Mark Layton)

issue, but the accumulated skin damage over months or years can lead to serious problems. It's worth finding a sun block that protects thoroughly against both UVA and UVB (think 'A' for ageing, 'B' for burning).

[1] *Thermalling weather or not,* Feb/March 2014 *S&G*, pp12-17

[2] *Impact of wind shear on lift*, Feb/March 2016 *S&G*, pp14-16



The SZD Junior takes a winch launch once it's possible to reach at least two thermals (Mark Layton)



Tony Cronshaw is an Ass Cat instructor at Cambridge Gliding Centre with over 1,000 hours gliding. His enthusiasm for helping the next generation of pilots includes running courses for visitors and members, and supporting CGC's recruitment and retention sub-committee

■ In part 2, Tony asks Kevin about how diurnal cycle impacts the middle of the day - improving or deteriorating soaring conditions - and into the late afternoon.

IF THE CLOUD
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SEBASTIAN KAWA

He's 10 times World Champion, current World Champion in 15m Class, European gliding champion in the 18m Class and number one in the FAI world rankings. S&G caught up with Polish pilot Sebastian Kawa just before his visit to UK gliding clubs in May to learn more about him

Age? 43.

Marital status? Married to Anna, with two

daughters - Ola and Marta. Where were you born? Zabrze, Poland, Silesia. Where do you live now? Miedzybrodzie Zywieckie, Poland, Beskidy Mountains. Occupation? Doctor, obstetrics and gynecology. Currently I do only a part-time job in local surgery. How and when did you start I joined Bielsko Biała gliding club in 1988. I started flying at Zar airfield. It was a division of the Aero Club Bielsko-Biała.

Which pilots most influenced you?

My father Tomasz Kawa.

How many other family members glide?

My father has now stopped, but my sister and a brother-in-law fly gliders.

Where and what was your most memorable flying experience?

New Zealand Grand Prix 2006. Patagonia, flying with Jean-Marie Clément.

What are your favourite gliding sites in

Airfield Zar, my home airfield.

What are your favourite sites in Europe?

Prievidza in Slovakia for competition. Sisteron when flying for fun.

What is your favourite site in the world?

Barilloche, Argentina. An absolutely extra dimension of flying.

What is your favourite glider?

18m - ASG, Open Class - JS1, 15m - I hope it will be the GP 14 in 15m version. Diana 2 is difficult to handle on the ground.

Who do you admire most in the sport? Uli Schwenk.

What piece of advice would you give to an aspiring competition pilot?

To have a proper motivation. Not just the result, but flying and the sport itself.

What has been your most interesting competition day so far and why?

There have been a lot of interesting days. Challenges are always big if you aim high. I remember my first task flown in wave in St Auban, also a difficult-to-fly task in a snowstorm in Norway. Then there was a ridge run in Chile below all safety limits, flying to valleys in Chile where there is no place to land. Also, convergences in Omarama, and a lot more. But I like mountains most.

If top performance can be taught, in what glider types?

It could be in a two-seater or in any other modern glider. Anything at least as good as Janus and Cirrus. A two-seater with engine



gives more comfort, with more room for errors. Otherwise an instructor can't give as much freedom to his student.

How do you see the world of competition gliding changing?

There is a big resistance to change the shape of competition. We have many pilots satisfied with how things are now. A lot could be changed, but it's mainly with gliding computers and engines. We have better weather models and better information. There was a nice idea of the Grand Prix cycle started by Mario Hytten. A few years later, we are beginning to develop this idea with the FAI, but it is not going as smoothly as it should. There is more space for average pilots in traditional competitions because we need to qualify and there are only 20 places in GP finals. Because of that, only a small group of pilots is interested in it. GP or similar competitions like parallel races - elite competitions - have big potential in making our sport more spectacular. Only the federation has the power to develop it.

When will you allow someone else to win!?

As I write this, I'm flying together with Karol Staryszak in Prievidza. He will probably win the competition. Unfortunately, I had to

change gliders three times before the race (GP 14, Diana 2, ASG 29 and finally JS1) and I didn't have enough time to prepare everything. There was a mistake in the start line setting left in this glider, so I missed the start line the second day of competition. But in the EGC (I have won all of the ones I have taken part in) it will happen very soon.

I'm concentrating now on different things. I help other pilots to fly. For example, Adam Czeladzki was very successful in the EGC last year after I flew with him in the Polish nationals and the FCC in Slovakia. He qualified to the Polish national team and came second in the EGC. Adam is handicapped. He can't walk after he broke his spine in a crash.

My interests are changing and I'd like to make expeditions rather than competition flying. It is more interesting to fly in a place where no one else has flown than to win for the 24th time. I would like to follow the Polish cliffs over the Baltic Sea with the GP 14 UL electric glider.

What is your pre-comp and flight planning process?

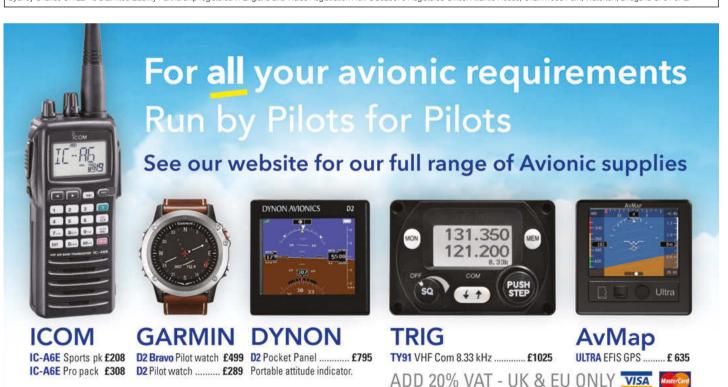
I choose to fly in local competitions to warm up. I try not to spend too much time before the WGC in one place at the competition

Sebastian Kawa competes in the FCC, Prievidza, Slovakia, in April

■ See next issue to read about Sebastian's visit to UK gliding clubs, which was arranged by Kevin Atkinson, lead coach for the BGA's Aim Higher initiative

IT IS MORE INTERESTING TO FLY IN A PLACE WHERE NO ONE ELSE HAS FLOWN THAN TO WIN FOR THE 24TH TIME





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What do you always pack for a comp? A laptop and Olympus camera.

What is the biggest gotcha in comps?

I believe that being fresh and relaxed helps most. I hope to find a clue what it is when I'm in discussions at UK gliding clubs in May. I have a theory that careful training, from the basics, is vital. If you can't control the glider, you can't centre thermals and land in a difficult field. If you can't land out and make a good use of difficult conditions, you are afraid of flying in weak conditions on your own and you don't believe in yourself.

Why Diana 2 over ASG 29 or JS1?

It is the best in the 15m Class, but there is no 18m version of Diana 2 so I flew ASG 29 in the 18m Class. One of the reasons why I fly these gliders is because I get them from the Polish National Team. There is no choice. In competitions where we have 50kg/sqm rule, it is better to fly the JS1 than ASG, but we didn't have one until now. The choice of glider is much more important in Grand Prix than in normal competitions, as time differences are in seconds.

If you were to have your time again what would you do differently?

If I knew that, I will be so successful in gliding for such a long time I would try to make it more as a professional. And I would have my own glider.

Out of 10 world championship wins is there one that stands out more?

The Grand Prix is always more difficult than traditional competitions. I remember especially St Auban in 2005 and the Omarama Grand Prix in 2006. St Auban was my first competition in an Alpine area. In Omarama it was the first time I had flown so much in wave.

Is there anything you don't like about comp flying?

There are a lot of pilots that fly only because they follow others. Rules favour them and we select not the best pilots, but the pilot who flies best in a group. I don't like errors made by competition officials. Sometimes it can influence a race a lot, so it is vital that we



have best possible competition organisation.

Do you prefer team flying?

Team flying gives an advantage, but it is difficult to find a good partner. In my career I liked to fly only with Karol Staryszak. If you take two champions and put them together, performance goes up squared.

Do you enjoy instructing?

I like to instruct when it gives results. I like to fly with the junior national team.

When not gliding, what do you do for recreation?

I travel, sail, trek, and spend time with my daughters.

What book are you reading at the moment?

Unfortunately about gliding again! It is in Czech language: Foreign gliders in Czech Republic.

What is your favourite film?

Any James Bond.

What is your favourite piece of music?

Dire Straits always. Smolik recently.

What would your motto be?

If you go in front, you have more challenges than others. It is normal and you have to face it.

What's your next challenge?

To fly in Antarctica. To fly in Kazakhstan Tien Shan. To explore places where gliders have not yet been.

MAJOR TITLES

> Bronze in World Class, Worlds, Leszno, Poland, 1999

> Bronze in World Class, Worlds, Lillo, Spain, 2001

> Gold in World Class, Worlds,

Nitra, Slovakia, 2003

> Gold in Club Class, Worlds,

Elverum, Norway, 2004

> Gold in Grand Prix, St Auban,

France, 2005

> Gold in Club Class, Europeans,

Nitra, Slovakia, 2005

> Gold in Club Class, Worlds, Vinon-

sur-Verdon, France, 2006Gold in Club Class, Europeans,

Pociunai, Lithuania, 2007

> Gold in Grand Prix, Omarama,

New Zealand, 2007

> Gold in Grand Prix, Torino, Italy,

2009

> Gold in Grand Prix, Santiago de Chile. 2010

> Gold in Standard Class, Worlds,

Prievidza, Slovakia, 2010

> Gold in Standard Class, EGU,

Nitra, Slovakia, 2011

> Gold in 15m Class, Worlds,

Uvalde, USA, 2012

> Gold in Standard Class, Worlds, Chavez, Argentina, 2013

> Gold in 18m Class, Europeans,

Vinon-sur-Verdon, France, 2013

> Gold in Standard Class,

Europeans, Ostrów Wielkopolski,

Europeans, Ostrów Wie Poland, 2013

> Silver in Grand Prix, Sisteron,

France, 2014

> Silver in Standard Class, Worlds,

Rävskälä. Finland. 2014

> Gold in 15m Class, Worlds,

Leszno, Poland, 2014

> Gold in 18m Class, Europeans,

Ocsény, Hungary, 2015

> Bronze in Grand Prix, Varese,

Italy, 2015

GETTING BACK IN THE SADDLE

HAD spent the last four months of

2015 in the USA working on an Airliner

David Innes muses on his first flight of the year, and offers his advice for other pilots intending to fly over the Scottish mountains

Dertification programme, and got back just before Christmas. The world (even my daughter teaching in Hong Kong) knows about the flooding affecting NE Scotland around New Year and we, living high above the River Don Valley, were unaffected directly. Our house was, however, effectively on a peninsula; the only passable road to our local town, normally two miles, required a 20-mile diversion (each way). Others in the river valley were not so lucky.

In the Dee Valley, while there was some water ingress to the Aboyne clubhouse due to the rainwater drains on the

In the Dee Valley, while there was some water ingress to the Aboyne clubhouse due to the rainwater drains on the A93 overflowing, the river water was within six feet of Alan Middleton's door. The field between him and the river, recorded for posterity on Penelope Keith's TV programme, was completely washed away and is now just a rock field. The airfield survived unscathed.

We had many visitors from Portmoak, which had not been so lucky. It appears that someone was limiting

the outflow from Loch Leven, to protect properties downstream, and water levels at SGC rose accordingly. Excellent for the local bird sanctuary, but not for the more rigidly-winged birds of Portmoak. Our two hard runways at Aboyne, laid at the highest points on the local flood plain, really helped our ability to continue flight operations and help our friends regain flight currency.

So, 23 January was my first opportunity to make pointless holes in the sky. A warm front over Ireland, SW winds and RASP was looking good, but I had first to find and be trained in the carpet cleaning kit for the clubhouse floor, so I was late out to the airfield. There were three syndicate members, including me, at the field, but one was tugging and the other had a bad back,

so the Grob was mine.

A quick DI, sign out, and off we go. Oh my, it is rough: so rough that we discouraged trial flights, there would be nothing but discomfort to an inexperienced passenger. I found myself rolling left, and full stick and rudder merely reduces the roll rate, so all I can do is stick forward to accelerate out of it. I once flew a Slingsby Sky (yes the type which won the World Championships in 1952) in wave, and when caught in rotor it just kept on rolling, so I opened the air brakes, and eventually recovered by pulling through after a "halfroll". One glider landed on runway 23 (one of the cross grass strips) since "there was so much sink in the circuit, I didn't have enough height for a base leg to get to runway 27".

I climbed out, tolerated the turbulence and eventually contacted rough wave. I cooled the engine and feathered the prop. I spent the next two hours in the 4-7,000ft band in unstable wave. I follow the clouds. impeded by the wind, which was 50kts WSW at height. With care, pointing directly into wind, I could get the ground speed down exactly to zero, so I was hovering at 5,000ft (at 50kts IAS). Slowing down a bit more, I could make my track angle 180 degrees to my heading, ie flying backwards over the ground. A "Track-Oriented" moving map (or FLARM bearings) can be extremely confusing under these circumstances. Watching the rotor clouds form, curl and roll over is beautiful and fascinating, but strangely there was often no significant lift upwind of them, and tucking a wing into the visibly up-going part of the cloud was a guarantee of being thrown around.

The high winds made any cross-country flying challenging, but I managed to get up to Balmoral, then Corgarff Castle to the north, and down to the south end of Loch Muick. Roy Wilson got as far as the Spey Valley. At Loch Muick, I found my best lift of the day, an unspectacular 500 fpm, and was shortly joined by the Duo Discus. Its better performance soon left me behind, but I had marked the best local lift. I eventually



The Grob at Aboyne (David Innes)

WATCHING
THE ROTOR
CLOUDS FORM,
CURL AND
ROLL OVER IS
BEAUTIFUL AND
FASCINATING,
BUT STRANGELY
THERE WAS
OFTEN NO
SIGNIFICANT
LIFT UPWIND
OF THEM

reached 10,000ft, from a low point of 3.500ft.

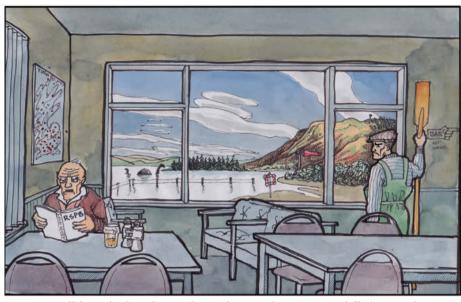
I did not go higher because I don't need any height badges, and the Grob has no oxygen system. Being mildly asthmatic, I use a blood oximeter to keep an eye on my saturation levels, normally starting at 8,000ft. For flying high, it's the best insurance policy you can buy (£20 from eBay, and I checked its calibration against a 'proper' machine at our local hospital). After a recent article in S&G (Breathe easily and fly safely, pp22-24, Feb/March 16), I'm now starting to check my blood oxygen at 6,000ft and upward.

I also always carry a PLB (Personal Locator Beacon), and have done so since I came back to private flying. Many years ago, a glider from Aboyne landed on the Cairngorm Plateau; the pilot had broken his legs and so he was trapped in the fuselage. Only a chance observation by an RAF fast jet resulted in his rescue the next day. The Cairngorm plateau can be deadly all year round. So a PLB, tested regularly, and carried on your person is another great insurance policy. I once encountered someone who had his PLB attached to the glider, which would have made finding the wreckage easy, but quite not so convenient if the pilot had to use his parachute.

PLBs are a bit more expensive, starting around £250 for one with GPS, but since it could make the difference between spending a night on a mountain or a ride that afternoon in a helicopter, I know which I would prefer. Obviously I always take a compass and flashlight, and, just as important, two survival blankets for me plus a passenger – silver for best thermal performance, orange for visibility in the snow. A portable VHF Comms radio would be handy, but Santa has yet to receive the letter. Mobile phones don't work in the mountains – although I have had calls and texts while at altitude.

The Cairngorm Range, however, isn't the area with highest risk of not being found easily in Scotland. The Monadliath range, between the Spey Valley and the Great Glen, is a high plateau with few access roads nor the benefit of large numbers of hillwalkers, compared to the Cairngorms, and similarly all the mountains to the NW of the Great Glen. These mountains also do a good impersonation of the Arctic for half the year, and glider fuselages do not show up well against snow.

I used the time at lower altitudes to explore the Dee Valley and to observe the damage caused by the river. New islands had



You'll be glad to hear that Aboyne is open and flying today!

been formed. Previous islands were cut in half. Roads disappear where the river washed them away. Thousands of trees are uprooted and sent downstream. A plantation the size of several football pitches on the opposite bank to the devastated caravan site at Ballater is now no more; just mud and sand and the occasional tree root. Several bridges were damaged, and it was reported that the bridge at Aboyne was moved three inches downstream.

I decided to head back towards Aboyne, to see if the wave was more stable in the Tarland bowl. This was the one time in the flight when my GPS track was aligned to my heading, but with a ground speed of 130kts while I was flying at 80kts. This confirmed the wind. It took just a few minutes to fly the 15 miles from Loch Muick.

Below 5,000ft it is still very turbulent, but with useable lift, which I prove by climbing for a few minutes to give my ears a chance to catch up with the descent. During my high "join", I start the engine and call the clubhouse for a wind brief, since both windsocks show a strong easterly. I prepare myself for lots more windshear, 40kts westerly at 2,000ft becoming about 10kts easterly was bound to bring some fun for landing on 09, but when crossing the field the wind has swung, so I declare for 27.

The approach was relatively calm and the landing uneventful, just a gentle skip in the three point attitude. Down safely again. Two hours flying time for 12 minutes engine time, with a flight cost of £24 is not such bad value at all and a great start to the year.

Cartoon by Matt Wright, Devon & Somerset GC

■ I should add that the soaring season started at Aboyne this year on 1 January, some decent wave available for those who had not been celebrating that pagan ritual. We even had thermals in mid-February and even the Grob was climbing, sadly, without me on board.



David Innes is an Ass Cat instructor at Deeside Gliding Club. He has Silver C, got his Gold height in a Capstan, and Diamond height, in 1976, in a Swallow



Alex Harris on the Carlton Ridge near Sutton Bank (Freddie Turner)

Matt Davis sums up an amazing year, which saw the Winter Series go back to its roots

Simon Hawkin making the most of the westerly at the Long Mynd (Chris Wilson)

I HAVE BEEN TO EACH ROUND OF THE **WINTER SERIES KNOWING** THAT I WILL BE TRYING **SOMETHING NEW IN GLIDING**

OW – what a year we have had with the 4th Winter Series! We've had our first 100+ attendance, some epic adventure flying, and even finished it off with a couple of first 50km flights and a first 300km flight. We also became the unofficial 'international' Winter Series, with trips from our friends in the US. Germany, the Netherlands and Australia

amongst others. Top effort!

This year we took the Winter Series back to its roots and revisited the clubs where it all started back in 2012 - Yorkshire Gliding Club (Sutton Bank), Midland Gliding Club (The Mynd) and Bristol & Gloucestershire Gliding Club (Nympsfield). Once again a massive thank you to these clubs for hosting us, and all those

who helped out in the various ways at all three events. It's a cliché, but we really couldn't do it without you.

We love taking our Juniors roadshow to these sites, but what do they think about having us there? Read on to find out the many benefits of encouraging a vibrant Junior scene. But before we get started, here's a quick word from our Winter Series winner, Danny Richmond, who did his Silver distance on the last day of this year's series:

"This Winter Series has been great fun, seeing new faces attend the events and experience new airfields has been amazing. I have been to each round of the Winter Series knowing that I will be trying something new in gliding, whether it be flying a different aircraft (some very shiny and expensive), or flying at a place I have never been before. My highlight of this series has been trying solo ridge soaring for the first time!"

Sutton Bank: 16-18 October 2015

With a relatively uninspiring forecast, we turned up to Sutton Bank in mid-October with a brave bunch of Juniors determined to test out their new tents in sub-zero conditions. A relatively unsuccessful attempt at bungeving a T-21 also gave some Juniors a giggle on the Friday afternoon, which got the series off to a fun start.

As ever though, we got some amazing flying, including sacrificing some intrepid Juniors to Sutton Bank's lesser-used north ridge. This was a highly enterprising flight in the knowledge that they probably wouldn't get back to Sutton Bank, and there were some entertaining landout stories from those who decided to land on top of the moors. There was also wave on every day of our trip, giving us a chance to check out the stunning Yorkshire countryside from above the clouds.

All in all a great start to the Winter Series, which broke previous attendance records.

Long Mynd: 5-7 February 2016

That attendance record didn't last long! For the first time in Winter Series history we had a potentially classic ridge weekend lined up, and 100 people on the entry list. Those that turned up early were treated to a 20kt wind straight on the hill and proceeded to have an absolute blast all day. Saturday ended up being a washout and provided one of the highlights of the series when we opened the hangar doors to find a nameless Junior asleep under the wing of a K-8, very much feeling the effects of the night before. Luckily the Six Nations and a forecast for another ridge day on the Sunday kept us entertained.

Mark Sanders from the Mynd gives us their point of view: "It's always a pleasure to host the Juniors at the Long Mynd as they know how to get the best out of our ever changing conditions. Friday proved to be the third flyable day in a row, as the ever-growing band of pilots managed to find enough breaks to punch up through the cloud sheet into wave and the clearer air above.

"Saturday 6 February was always going to be a write-off, something that was not lost on the 80-plus Juniors and helpers who sat down for dinner on Friday night, followed by a spirited attempt to drink the bar dry. Sunday looked more promising, so there was a 6.45pm briefing to save time the next day, before 85 sat down for dinner on Saturday, and an allegedly early night to be fresh for the next day. (I understand there was an attempt to shoot down a drone with some rockets – why wouldn't there be? – but you'd need to scan YouTube for evidence.)

"On Sunday 7 February I arrived at 7.50am for the planned 8am unpack, but the hangar doors were already open and the K-21 was out on the apron gathering a gentle dusting of sleet.

"The clubhouse was packed with people queuing for breakfast – these Juniors are really, really keen! Soon after, trailer doors started opening and it wasn't long before we had a fleet of eight or so two-seaters and 12-15 single-seaters ready to go. The wind was 260/20, there was a 1,500ft cloudbase and, although there were occasional showers, they were light and patchy and soon blew through. First launch was at 9.15am. By 11am we were up to 25 launches, at 2pm 75 launches, by which time the wind had backed more SW-SSW and the rain had become (quite) a bit more menacing. We packed the hangar and retired happy for tea and cake!

"The UK Juniors – what a great bunch of people. Excellent pilots, enthusiastic, good company – a proper all-round fun weekend. I'd say the future of gliding is in good hands."

Nympsfield: 15-17 April 2016

Our annual 'Spring Series' was lining up to be a classic in the run up to the weekend, and certainly did not disappoint! Friday's forecast rain held off and we managed to clear through most of the check flights ready for the weekend, which was destined to be filled with pretty cumulus.

Saturday gave us a clean sweep of Winter Series ridging, with a northerly wind letting us go and play on the local ridge in the morning before the sky opened up in the afternoon. We had two World Champions in Andy Davis and Steve Jones, amongst others, chauffeuring our Juniors round the sky, with trips out into Wales and the surrounding areas.

Sunday was gradually building up into a bit of a cracker and we had a big grid formed by 9am. With tasks ranging from 50km to 500km set, most of our Juniors raced round a 300km task via a very excited man on the hillside at Cerne Abbas. The conditions were straight out of the Southern Hemisphere, with climbs touching double figures. An absolutely fantastic

day with many badge flights claimed and a bunch of very happy glider pilots.

Greg O'Hagan, Nympsfield CFI, sums it up by saying: "It was great to see so much activity around the club. Flying was to a high standard and people behaved, with everyone tidying up any bar-related mess promptly each morning. The Juniors brought their own tug and aircraft, complete with instructor support, which allowed everyone to get plenty of flying. Overall, everyone had a lot of fun!"

What a way to sign off the Winter Series for another year!

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Fast asleep under the wing of a K-8 (Steve Pozerskis)

■ Want to stay up to date on all things Junior Gliding? Follow us at facebook.com/ UKJuniorGliding

Attendance records were broken during the series (David Edwards)







This page, above: On 20 February, 2016, Southdown's John Haigh experienced a wonderful 510km flight in a Duo Discus from Omarama, with a Diamond height gain of 17,982-20,855ft. Running up to Lake Pukaki, the cloudscape became incredible. The photos were taken by P1 Milan Kmetovics at around 15,000ft, running the wave at VNE

Left: the Fife coast of the Firth of Forth with Anstruther in the foreground during an April flight from Portmoak (John Williams)

Facing page, clockwise from top:
Grob looping with pyro captured by
Paul Johnson/Flightline UK during the
AeroSPARX display for *The One Show*'s
90th birthday tribute to the Queen (see
story on page 13)

ASW 27b photographed in May 2015, near Gap (French Alps), during a flight from Sisteron (Sophie Mahieu)

Dave Watts, CFI of Bicester GC, finishing a 'first cross-country of the season'

First flight with a new toy, Mosquito G-DDPK, along the eastern mountains of Austria near Mariazell. In the picture is the Hochschwab mountain, 2,277m (Herbert Nolz)

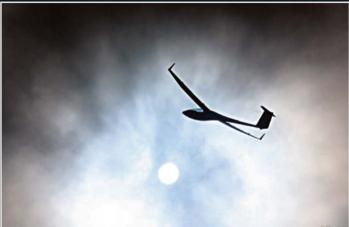
Matthew Williamson in 'Sophie' SF27A, turning Beer Head back towards Sidmouth on a south coast cliff day from Devon & Somerset GC (Matt Wright)

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











TWO SIDES OF THE SAME COIN

John Williams
outlines soaring
from a glider
pilot's perspective,
while air traffic
controllers offer
their viewpoint

CITOII VIO VIO OIITE poweres

All of this activity requires almost total concentration on looking outside the glider (Jacques Noel)

THE FUTURE
SUCCESS OF A
FLIGHT DEPENDS
DIRECTLY ON
WHAT CAN BE
SEEN OUTSIDE
THE COCKPIT

OARING, radio, airspace and collision avoidance. The following is an attempt to explain and explore these subjects as seen through the eyes of solo crosscountry soaring pilots; a segment of aviation where the paradigms that apply can differ significantly from those of other aviators, controllers and regulators. This article is not meant to be condescending in any way, but it is inevitably aimed at those unfamiliar with current soaring activities.

Basics

At a basic level, flying a glider is just like flying any other light aircraft, albeit with the power control locked somewhere near idling

speed. The flying controls are fundamentally the same. With high-performance, low-drag wings gliders can fly for several minutes and go a long way before proximity to the ground becomes an urgent problem, but sooner or later gravity will dictate a landing unless rising air is found – see "Soaring" below.

Soaring

The unpowered pilot can achieve a lot. Different individual flights in the UK have been made above 38,000ft, covering more than 1,500km in a day, exceeding average speeds of 100kts, and exceeding 12hrs in duration.

Modern efficient gliders have helped, but even the very best glider can only achieve useful performance if it spends time flying in air which is rising faster than its natural descent rate. Laymen and power pilots seldom realise just how much vertical movement there is in the atmosphere, it is not something that can be seen directly – but a practised eye can read much from obsessively studying clouds and by thinking about weather systems and how air flows over the surface of the earth.

The soaring pilot operates in what others

might best understand as a permanent state of engine failure. Second only to the basic needs of flying the aircraft, the soaring pilot's priority is to find rising air and use it to gain or maintain height to prolong the flight (or alternatively assess and select a suitable site and then execute an out-landing).

Over and above simply flying the glider, the pilot's workload is thus to continually assess:

- How high am I and over what sort of terrain?
- If I can't find rising air where can I land
- If I have enough height to reach landable terrain further on, how fast should I fly (faster gets further quicker, but fast means more drag so have to find rising air sooner and spend more time in it)?
- Just where is (the best) rising air looking at clouds, birds, other gliders circling ahead, is there wind blowing onto an upslope?
- How much is it worth deviating from the straight line track to use a more promising thermal? It is often faster to deviate by up to 30 degrees if better climb rates can be found. And if conditions are weak it will be worthwhile to deviate by any amount just to stay airborne.

By its very nature, all of this activity requires almost total concentration on looking outside the glider. It also means that gliders will tend to aim for the best rising air. Joining a glider (or a whole gaggle of gliders) already circling in good lift is often easier than finding and then centring rising air by yourself. So gliders aren't distributed randomly though all available airspace – they tend to congregate in the best (rising) air.

More than in any other form of aviation the future success of a flight depends directly on what can be seen outside the cockpit; and at an early stage in training soaring pilots become skilled and accustomed to circling close to other gliders while still avoiding contact with each other. Nonetheless the process of joining a thermal and then circling closely, but safely, with other gliders deserves



the full concentration of every pilot, no matter how experienced they may be.

Radio

Those more used to commercial and IFR aviation have come to understand that a centralised air traffic controller is often best placed to separate aircraft from each other – for example, a congested approach lane to a busy commercial airport would be difficult to manage any other way.

It is, however, inconceivable that a central controlling individual could possibly give instructions that would successfully keep a gaggle of circling gliders apart. In fact, a single distraction to even one pilot, by for example a radio call or by having to look down at the radio to select a frequency, would not enhance safety – it would unquestionably reduce it.

A recent straw poll of opinions of highly experienced soaring pilots gave illuminating results. Most would not ever consider setting a soaring task which required the use of radio to request access to controlled airspace; the sole exception being a two-seat glider where both seats were occupied by commercial airline captains who could divide and share

the soaring and communication duties. One highly experienced commercial pilot noted that his soaring abilities reduced measurably (by 100 feet per minute average climb rate) when required to use the radio (even if only to give information).

It is interesting to note that the reduction in road safety while using even an approved car telephone is well understood by the public and acknowledged by the Department for Transport, but is for some reason seldom acknowledged in aviation. The apparently subconscious skills of car drivers suffer badly when they communicate externally; piloting an aircraft can hardly be different. The old maxim "aviate, navigate, communicate" is today as critically important an order of priorities as ever.

Airspace

In addition to staying airborne and attempting to achieve cross-country flight it is, of course, essential to avoid infringing controlled airspace. The prevalence and complexity of UK Airspace means that simply looking at a map would demand far too much head-in-cockpit time. So UK gliders invariably carry GPS driven moving maps

Photo by Paul Haliday



John Williams was a keen sailor until "forced" to take up gliding in 1993 when his job moved him to London. After early years at Dunstable he moved to Scotland and became intrigued by wave opportunities from Portmoak. He is one of a small group of Scottish-based pilots who continue to explore the boundaries of "what might still be possible, but hasn't been done yet". He has an Antares, 3,000+hrs, a BI rating and a 2,000km diploma



Gliders aren't distributed randomly though all available airspace - they tend to congregate in the best (rising) air (Paul Haliday)

CONCLUSIONS

Soaring is arguably the purest form of flight. It is a demanding, exciting and incredibly rewarding sport where engineless flights are regularly made in ways which outsiders could hardly imagine.

Soaring aircraft share the air with others, who operate with different philosophies and beliefs. The regulation of our air and our sport is often done by those who may have only experience of those differing philosophies. These few paragraphs are simply an attempt to give a little background to those who might wish to better understand soaring and its airspace needs.

and audible alarms set to warn some minutes before reaching CAS. All competitive glider flying requires scoring by the submission of secure data-logger flight information. These are scrutinised and draconian penalties applied to any infringement, even if only by a few metres or for a few seconds duration.

This approach means that glider infringements are few; it also means that controllers may be unnerved by gliders racing up to CAS and turning away at the last moment or routeing just outside CAS with the benefit of instant accurate mapping.

While it is possible for gliders to request permission to enter Class D airspace, this rarely happens. Crossing any significant distance cannot be guaranteed in a straight line: it might be necessary to deviate or to regain height by circling in a thermal. A controller might at the outset request an orbit or 90 degree turn for the purposes of identification, which could precipitate a loss of height before the requested track was authorised.

The probability of permission not being granted may not be great, but the consequences would ruin an entire soaring flight. When this is added to the issues of radio use mentioned earlier, the result is the overwhelming avoidance of CAS - its existence is therefore seen as an impenetrable barrier to cross-country soaring flight.

Collision avoidance

The risks to glider pilots are well known and extensive statistical records allow us to identify and manage them. For example,

recent work on winch-launching has seen a dramatic reduction in those accidents. Other significant risks include low-level stalling/ spinning and out-landing accidents. Further down the statistical list of accidents comes mid-air collision.

The nature of airspace and the necessary seeking out of rising air means that, once away from the home airfield, the dominant mid-air collision risk is glider to glider. We understand that a similar theme exists for light powered aircraft.

In the European Alps, where snowy backgrounds made the visual acquisition of white gliders more difficult, a simple GPS device was designed to warn individual gliders of the presence of other equipped gliders. This device has proved extremely popular and has been voluntarily fitted by the vast majority of cross-country flying glider pilots in the UK. Because the device gives pilots direct, immediate and pertinent information they value it and justify its purchase as a significant aid to visual look-out.

The comparative experience of talking to well-meaning ATC, who may call up a busy pilot trying to soar away from low levels with information about a new QNH or a powered aircraft a mile away, is not a good one.

An upgraded device, PowerFLARM, is also now being fitted to light powered aircraft; it could easily and cheaply be also fitted to commercial aircraft and would show FLARM equipped gliders on a simple display.

A further development is that live tracking of glider FLARM data is freely available on the internet. Any interested airfield can therefore monitor local gliding activity at the touch of a button.

No doubt further developments, limited only by users' imagination, will become available in future.

SOARING GLIDERS - THE AIR TRAFFIC CONTROLLER'S **POINT OF VIEW**

N GENERAL terms, when providing a service to aircraft, whether it's a control service or one from the suite of Flight Information Services, a controller needs to be able to plan ahead. The degree to which that needs to happen is determined very much on the complexity of the airspace and the type of traffic operating in that airspace, and what that aircraft or group of aircraft wants to do. In the case of gliders this is not always as predictable as we might like it to be!

In order to provide a service or access to



controlled airspace, if that is what the glider pilot wants, a controller needs a certain amount of information from aircraft under his/her 'control' in order to formulate a mental plan that will, hopefully, allow all of the parties to do what they want to and not result in a loss of separation or any unexpected surprises for anybody involved. The information that is ideally required to form that mental plan can be broken down into a number of key headings and will depend on whether it is passed by radio or organised on the ground in advance. Clearly the airborne call is the most commonly used by ATC, if not necessarily by glider pilots. In the event of a radio call, this can be broken down as: callsign, aircraft type, departure point, destination, position, level and intentions.

The requirement for some of these pieces of information (eg callsign) is obvious, others less so, therefore, I will try to outline the rational for each piece.

- *Callsign* Probably the most obvious, we need to know who we are talking to.
- Aircraft type From this we can get an idea of the aircraft's performance and manoeuvrability. This gives us an indication of how far to plan ahead of that aircraft as a Cessna Citation will cover ground much more quickly than a Piper Cherokee or a

high-performance glider.

arrivals or departures, or both.

current position and next turning point – This gives us an approximate idea of how the aircraft's flight will affect the airspace for which we are responsible. Is the aircraft's routeing likely to take it east or west of the airfield (or even north or south)? From this we can also assess if coordination needs to be effected with adjacent units or if it will affect

Departure point and destination, or

• Position, altitude or level band and future intentions – This refines and reinforces the information provided by the departure point and destination. It also acts as a filter so that traffic information passed to all aircraft can be more relevant. In the glider case it is acknowledged that this might be quite generic.

There are a number of objectives of Air Traffic services. In this context, the relevant ones are to prevent collisions between aircraft, to expedite and maintain an orderly flow of traffic and to provide advice and information useful for the safe and efficient conduct of flights – to all pilots. The best possible information concerning the position, level and intentions of an aircraft is essential in allowing the controller to fulfil those objectives and deliver the, frequently changing, mental plan.

Most controllers, while not necessarily ₹

The process of joining a thermal and then circling closely, but safely, with other gliders deserves the full concentration of every pilot, no matter how experienced they may be (www.sandyprints.co.uk)

A CONTROLLER **NEEDS A** CERTAIN **AMOUNT OF** INFORMATION FROM AIRCRAFT **UNDER HIS/** HER 'CONTROL' IN ORDER TO FORMULATE A MENTAL PLAN THAT WILL, HOPEFULLY, **ALLOW ALL OF** THE PARTIES TO DO WHAT THEY WANT TO



Photo by Paul Haliday

■ With thanks to the ATC inspectors in the ATM Regulatory Team of the Safety & Airspace Regulation Group at Gatwick for their contribution to this article.

CONCLUSIONS

So, in sum, gliders are generally not perceived as an ATCO's best friend - they don't paint very well on radar; their ability to manoeuvre is limited in terms of the ability to integrate with other traffic (in the normal terms of heading or height) and by nature of their (relatively) slow speed they hang around for a while and, in many cases, the glider pilot does not want to communicate more than the absolute minimum necessary. Under these circumstances it is relatively easy to see why, under some situations, the easiest thing is to say 'no'. However, if a request is reasonably made (both in terms of time and location of access), under many circumstances the request to access controlled airspace should result in the answer 'yes'. But, if nobody tries then it will remain a block of airspace that is not available to glider pilots - that is never the way it was planned or intended to be operated.

reasonable understanding of the effect weather can have on aircraft performance, as it forms part of their training. We appreciate that under certain conditions, pilots of aircraft, particularly gliders, may not be able to give as accurate an indication of their intentions as we would wish, or a change of circumstances prevents previously declared intentions from being carried out. Under these circumstances, it is important that as much relevant information is provided to the controller as soon as possible so that the best level of service can be provided to all the airspace users and not just one user community.

If gliders are operating close to a busy airfield in class G airspace or close to the boundaries of class D airspace, particularly during an organised event or competition, then it would be really helpful if the organisers would engage with the relevant ATSU to discuss likely routeings or operating areas sometime before the event starts or the task is launched. This would give the unit the opportunity to develop mitigations for any issues which may be identified so that all users of the airspace have the chance to get the best out of a given situation – in many cases this is a safe compromise!

With any organised event it would still be worthwhile contacting the airfield concerned and arranging a visit of a small group of pilots to that control tower to "see how the other half lives" as no group of individuals exists in isolation. This applies equally to pilots of every discipline (rotary/fixed wing/ glider/GA/commercial, etc) as it does to ATCOs. The best level of service can only be achieved when all parties involved act together in cooperation and this can be best achieved by having as complete as possible

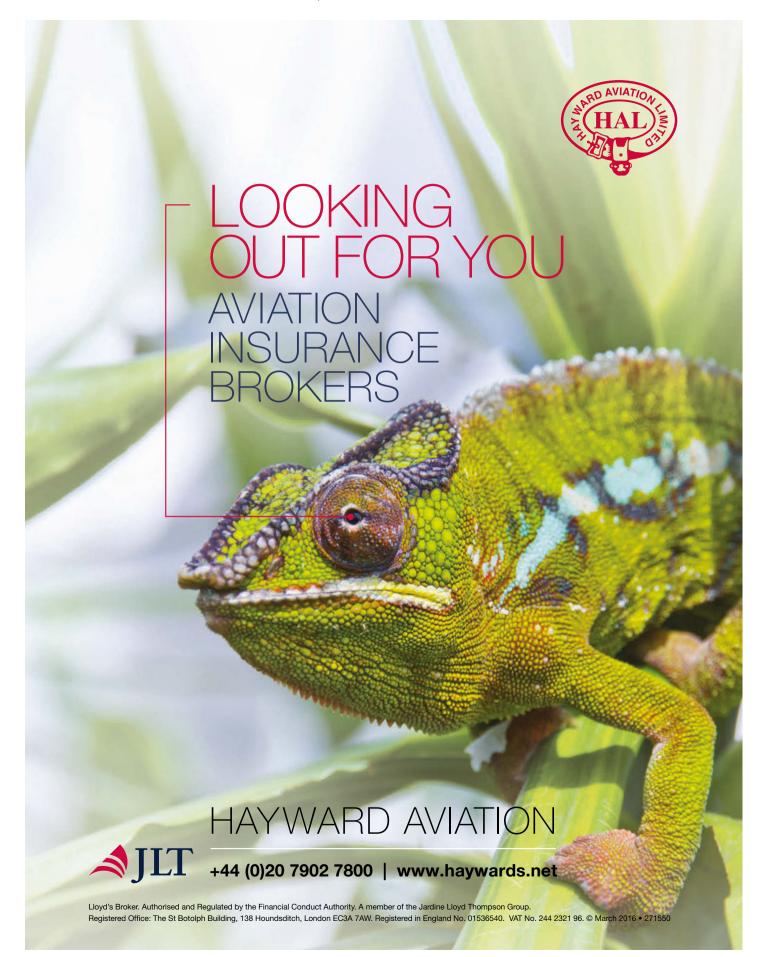
an understanding of each other's needs and limitations. Why not offer to get your local ATCO's airborne to see it from the glider cockpit perspective - with only FLARM and possibly no radio - that should get them looking out of the cockpit!

Finally, the usual reason an ATSU exists at an airfield is that the level of traffic using that airfield is sufficiently dense and/or complex as to justify a higher level of service to ensure the safety of aircraft arriving, departing and transiting through the airspace around that airfield. While the ATSU must make every effort to allow access to a given piece of airspace, ultimately it may not be possible, in the context of class D airspace, for an aircraft which cannot be identified on radar and may not be radio equipped, cannot comply with ATC instructions or follow a prescribed routeing through that airspace, to be allowed access under a particular set of circumstances. But this should not mean it cannot happen ever!

However, what may be possible, depending on the desired general routeing and the prevailing traffic situation, is to give a block clearance that does provide the opportunity to route through a particular volume of airspace - "not further south than...." (a prominent line feature), or "not lower than x thousand feet" or "not above x thousand feet" (although it is acknowledged this might not work too well unless it was a relatively high altitude!). While it is recognised that this may not give all of the flexibility that the glider pilot might ideally want or need, in some cases it may allow cutting a corner of a CTR that could enable the glider pilot's task to be achieved. But this does require a radio call to make it happen.

The challenge for the ATCO, if they are likely to have any traffic that might be effected by this routeing/clearance, is they need to be able to retain track identity of a primary radar 'blip' that may only be painting intermittently on the radar display, or segregate the 'chunk of airspace' for the particular gliding task. Consequently, if there is a potential that this might be the situation, or there are large numbers of gliders operating in a small area, then this becomes very difficult indeed.

Even in the case where a controller may have given a 'block' clearance to use a volume of airspace, he/she still needs to know when that airspace is no longer occupied or in use. This requires a confirmatory call by the glider pilot to notify they have moved on.



LLANBEDR: SHARED SKIES

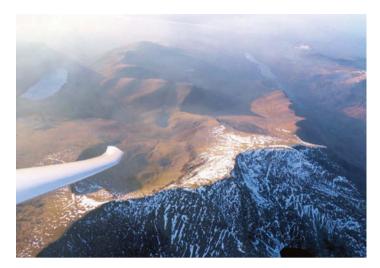
Mike Greenwood explains how close communication makes sharing the sky a safer place during a club exped to Snowdonia

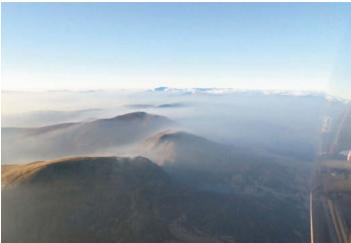
HAVE lived in Snowdonia and worked in Barmouth for many years, walked up every hill and mountain in Southern Snowdonia and climbed Cader Idris more times than I can remember – all this time gliding from the Long Mynd. It has always been my dream to fly over Snowdonia from Llanbedr airfield, near Harlech.

For 20 years I could see it from where I worked, and watched the Jindivik drones towing targets out into the danger area for target practice off an 8,000ft runway. The airfield closed in 2001 and I drove past this huge empty airfield for more than 10 years. In 2014

the airport reopened as the Snowdonia Aerospace Centre. It is one of the six possible locations for a UK space port; Qinetiq operate Remotely Piloted Air Systems from the site, and Fly Llanbedr operate a flying school and tourist flight business. They have a Flight Information Safety Officer (FISO) on duty in the control tower 9-5 on weekdays.

Staffordshire Gliding Club had held a brief expedition there in 2015 (*Trail blazing in Snowdonia*, pp11-12, Aug/Sept 15), and Dunstable had been there for three weeks in September 2015 and had an excellent time (*Gallery special: Llanbedr*, pp32-33, Dec





₹ 15/Jan 16). With that in mind, Midland Gliding Club and Wrekin Gliding Club organised an expedition there for a week from 13 March 2016. In discussion with Fly Llanbedr and the airfield managers we had ascertained that there were no other activities on the airfield that week.

The airspace in Snowdonia is Class G, and gliders from Long Mynd and other clubs along the Welsh border venture into Snowdonia to fly over Snowdon, or to the coast, whenever conditions allow. However, the RAF operate fast jets in that area from 9am to 5pm during the week. I live under the Mach Loop, their main low level training run, so I am quite familiar with this. It was obviously vital that if we were to have a dozen gliders in the area for a week that we maintained a safe separation of gliders and fast jets.

Two weeks before the expedition Squadron Leader Alan Swan, who is the chairman at Wrekin GC, but also one of my syndicate partner in a Duo Discus at the Mynd, agreed a Memorandum of Understanding (MoU) with the RAF. The RAF divides the airspace over Snowdonia into VATA sectors (see map right); Llanbedr airfield is on the western edge of VATA Echo, the area between Porthmadog in the north, Tywyn to the south and the eastern end of Bala Lake. We assumed that, being Wales in March, it would rain most of the time and, if we were lucky, we would be flying on the local ridges and in thermal lift so agreed to stay in VATA Echo below 6,000ft unless we informed RAF Valley ATC otherwise.

As it turned out this assumption could not have been more wrong, as we had sunshine all week, and for the first three full days we had off-the-clock wave lift up to 18,500ft in clear air. We continued to have wave lift on six of the seven days.

Sunday 13 March:

We arrived and rigged gliders. It was a nice sunny day, no signs of lift. The tug, a Turbo Falke from Wrekin GC, was delayed by bad visibility at Cosford. At 4pm we did two launches to 3,000ft for a sledge ride down. There is no FISO on duty and the RAF do not operate on weekends, so we negotiated our use of runways with Fly Llanbedr; they were operating flight training and pleasure flights. We had access to one of the two enormous hangars which Red Bull famously flew two aircraft through in June 2015.

Monday:

Alan Swan rang air traffic control in RAF Valley at 7.30am and 9am to discuss our operation for the day, which he did on each subsequent day of the expedition. We were expecting a local flying day remaining below 6,000ft as agreed in the MoU. We briefed the glider pilots on airfield operations and arrangements with Fly Llanbedr, a daily fee which included free tea and biscuits. Dave Crowson, professional instructor at Midland GC, Alan Swan and

myself went to the tower to discuss our needs with the airfield FISO, Fly Llanbedr and airfield manager. We discussed and agreed on radio communications with ground radios for all ground movements; the runway in use, 05 as there was a strong east wind; how we would move the gliders to the launch point; and the possibility of east wave, and actions if we were to climb above 6,000ft or outside VATA E – we arranged to radio the FISO, who would contact RAF Valley by telephone.

One of our members arrived in his

Above left: Summit of Snowdon at 7pm, well after the RAF have stopped flying for the day

Above right: The Rhinogs veiled in smoke from heather burning, trapped by the high pressure inversion

Facing page: Llanbedr airfield is located in the Snowdonia National Park (Mike Greenwood)

Below: Flying in Snowdonia and talking to Air Traffic is much easier if you are aware of the VATA system



WE HAD
SUNSHINE ALL
WEEK, AND
FOR THE FIRST
THREE FULL
DAYS WE HAD
OFF-THE-CLOCK
WAVE LIFT UP
TO 18,500FT IN
CLEAR AIR

GLIDING AND

RAF VALLEY

IT'S great to see real attention being paid to coordination to improve everyone's safety.

Back in 2013, the Welsh clubs agreed a process to notify Valley of gliding activity in Wales, but this wasn't set up to deal with the amount of activity quite close to Valley that this kind of expedition entails. Generally Valley are pretty helpful, but of course they aren't the only military aircraft operating in Wales.

Dunstable were at Llanbedr in September 2015, and also took pains to coordinate in advance and on a daily basis with Valley; their arrangements were pretty similar to those described here, based on agreed max gliding altitudes in the VATAs.

They also raised a NOTAM covering the period of their visit. If Llanbedr is to continue as a popular expeditionary site, as seems likely, we should perhaps consider a more lasting arrangement with Valley?

Whilst it's important that everyone accepts the right of all users to be in Class G, having a midair with a fast jet could spoil everybody's fun for quite a while.

So, squawk if you have a transponder, talk if you're in a busy military area, and if what you plan might be considered

'exceptional', follow these examples and build some bridges in advance

Chris Fox, UK
AirProx Board
Gliding Member
and North Walian
aviator

Right: View from the airfield of wave clouds over Snowdon (Mike Greenwood) Falke motor glider reporting strong wave climbs over Rhobell Fawr to the east of Llanbedr on the way over from Lleweni Park.

At 1pm Duo Discus KA reported they were climbing in wave approaching 6,000ft out over the sea. I immediately got in touch with the FISO and asked him to contact Valley to tell them we had the potential to operate up to FL195 in wave. The FISO radioed back after contacting RAF Valley to ask which sectors we would require to what height, and we agreed that we would operate in VATA Echo, General Handling North (GHN) as the initial climb was out to sea to the west of VATA Echo, and Delta, over Snowdon, potentially up to FL195. I subsequently radioed the FISO to confirm that this information had been passed to RAF Valley ATC, and received confirmation.

I then took an aerotow in our Duo Discus with one of my syndicate partners. We pulled off at 2,500ft in wave lift over the sea and climbed at 6kts to 9,000ft, before pushing forward to the Rhinog ridge primary and continued climbing. As we climbed through 12,000ft, we spotted two Hawks about five miles to the south over Barmouth engaged in an aerial combat exercise. They obviously saw us and immediately left the area to the north. I radioed the Llanbedr FISO confirming that we had informed Valley that we would be flying up to FL195 in that area, but they were still operating in that sector.

We climbed to 15,000ft and flew around Dolgellau and over Cader Idris remaining in VATA E with no further sightings. The air was crystal clear so the views over Snowdonia were fantastic. The club K-21 went round all day climbing to 10,000ft and then descending to take the next club member on a 10,000ft wave climb, while the private gliders enjoyed similar long, high flights.

Tuesday:

In discussion with RAF Valley Air Traffic, it



was obvious that we needed to improve our communications flow if we were to minimise our impact to RAF Valley activity. We agreed with the RAF that we would inform them when we started launching, remain below 6,000ft in VATA E until12 noon, after which we would climb above 6,000ft in VATA E and GHC. Individual gliders would contact RAF Valley ATC directly to negotiate entry into other sectors.

It turned out to be another very good wave day, with gliders flying all over Snowdonia in contact with RAF Valley. Although heights were agreed up to FL195, in fact the maximum height achieved was 10,400ft. I phoned RAF Valley in the afternoon to check that the communication was working OK; communications were better, but with so many gliders all over Snowdonia the RAF were having to cancel planned sorties. I pointed out that as it is class G airspace, gliders can fly from anywhere over that area; gliders over Snowdonia were not necessarily from Llanbedr.

Gliders from the Long Mynd fly over Snowdon or to the Welsh coast whenever the conditions allow, but we never think to contact RAF Valley to let them know what we are doing. At least they knew where all the Llanbedr gliders were at all times.

Wednesday:

By now we had fallen into the routine that Alan would ring the RAF Air Traffic Supervisor at 07.30 to negotiate our needs for the day. We met with the airfield staff at 9.30 and discussed our arrangements with the RAF and use of the airfield. Incredibly, this was another easterly wave day with no clouds and good visibility. After 12 we were all climbing in strong wave lift and flying over Snowdonia.

One of the MGC gliders ventured up in to GHN in Ynys Mon, talking to RAF Valley, who asked him to remain above 5,000ft to be clear of their MATZ. After an hour they contacted him and asked him to return to VATA D over Snowdon as they had Hawks in the area, which he did, carrying on south to Machynlleth.

I phoned the duty pilot in RAF Valley in the afternoon and had a long discussion with him about our operations. The first thing I learned was that the duty pilot changes every two hours, and our agreement of 9am by this time had become watered down so the current duty pilot did not have the full information of the original agreement from 9am. Although the RAF were extremely accommodating, our



Returning to Llanbedr airfield after another spectacular flight (Mike Greenwood)

flying was quite disruptive to them, and they were having to cancel operations due to the number of gliders over Snowdonia in these exceptional conditions.

As it is class G airspace, if we request to go into an area they have to let us go there, and then keep their aircraft out of the area to avoid conflict. We discussed a number of options as the previous day they had vacated areas for us to fly over 10,000ft, but we had climbed only to 10,400ft, and they were having to route aircraft around gliders in the Mona/Valley area. The duty pilot requested that outside VATA E we remain below FL100 so the Hawks could operate above FL110; that way we could both use the airspace without impinging on each other's operations.

I had a late afternoon flight, we climbed to FL100 then, after 5pm, travelled south into VATA Foxtrot to Aberdovey. I came back north, climbing in a wave bar 6km off the coast in General Handling South. I then followed the wave bar north into VATA Delta to the summit of Snowdon, before final glide back to the airfield. The other Mynd Duo had climbed to 18,500ft, after RAF Valley had closed, and the K-21 was again taking club members on 10,000ft wave climbs all day.

Thursday:

After the usual early morning phone calls and a long meeting with the FISO and airfield managers, and bearing in mind my discussion with the RAF Valley Duty Pilot the previous day, we came to the final agreement which suited everyone:

• Gliders could fly at any height in VATA E and the eastern part of GHC after 12 noon, the area around the airfield.

- Gliders could fly into VATA D over Snowdon and VATA F and GHS south of Tywyn if they informed RAF Valley by radio and remained below FL100.
- Gliders would not fly in GHN as this includes the Mona and Valley approaches and the RAF had to divert aircraft around gliders.
- The RAF Hawks would transit in GHC 10 miles out to sea below 2,000ft, as it seemed unlikely that they would encounter any gliders.
- The RAF would operate in VATA D and VATA F above FL110.

As it turned out, as we did the first launch a sea breeze sprang up which killed both the wave and any thermal activity. Once it became apparent that this had set in for the day, we phoned the duty pilot in RAF Valley and informed him we would remain in VATA E below 6,000ft for the rest of the day.

This agreement remained in place for the last three days of the expedition. Although we had weak wave lift and some long soaring flights, we remained below 6,000ft in VATA E and informed the RAF by 12 noon, once it had become apparent that the conditions had set in for the day, that they could use the rest of the airspace for the day.

In the seven days we were there, we did 80 launches, had seven days of unbroken sunshine, six days of east wave, did many long, high flights through the heart of Snowdonia in clear air, and many climbs over 10,000ft. As I said to the RAF duty pilot expressing concern at there being gliders all over Snowdonia flying at up to 18,000ft for the third day in a row: "This is very unlikely to ever happen again in our lifetime," and he sounded a lot younger than me!



Mike Greenwood started gliding in 1984 with a £5 trial lesson at Staffordshire gliding club when it was at Morridge. A member at Midland GC for 20 years, Mike is a Full Cat instructor and currently the CFI. He has over 1,000 hours and has shares in a Duo Discus, an Open Cirrus and a T-21

WHAT WE LEARNED:

- Flying in Snowdonia and talking to Air Traffic is much easier if you are aware of their VATA system, which we all got to know by heart. The main VATA box is on the ½ mil CAA chart, but without the detail.
- RAF Valley ATC were extremely helpful in all cases and contacting them in the air could not have been easier. If you don't have an RT licence they would still rather talk to you than not.
- Gliding activities can be very disruptive to RAF operations and if you tell them you are entering a sector they will leave it. Within the VATA system, staying below FL100 overland and 6,000ft over the sea makes it a lot easier for the staff at Valley.
- Fly Llanbedr and the Snowdonia Aerospace airfield staff were absolutely brilliant, and could not have been more helpful; they even delivered lunch and flasks of tea to the launch point.
- Having an RAF squadron leader on your expedition is invaluable and engaging early before arrival with other potential air users, in this instance RAF Valley, makes for better Situational Awareness.
- Having a transponder,
 FLARM or IFF, makes it a lot easier for the RAF to keep track of where you are and route their aircraft around you.

FAILING (MORE)

Guy Westgate's flying display team, GliderFX, has recently returned from the United Arab Emirates, where they got to play with the world's best fliers from the elite Skydive Dubai wingsuit team

Y BIGGEST mistake of last year was to limit my imagination. I could not have predicted the outcome of our latest adventure, it has just bounced along from surreal to bizarre, but along the way has shown us what can be done with a little enthusiasm and a spirit of adventure.

We left the Al Ain Airshow in December 2015 as champions of the Breitling award in the 'Grace' category, with a prize of two lovely Breitling watches – we were chuffed to bits. On the last day, when we probably should have been packing our shipping container for the long journey home, we got a special flight clearance to aerotow 70km across the desert towards Dubai, to the Desert Campus parachute dropzone to show our glider (and our new skydive stunt) to the guys at Skydive Dubai, in search of our next adventure.

Skydive Dubai was started in 2009 by Emirati Nasser Al Neyadi, with support from Sheik Hamdan Bin Mohammed Rashid Al Maktoum, Crown Prince of Dubai.

Their first dropzone was based on a short grass strip on reclaimed land in



SURROUNDED BY THE WORLD'S **TALLEST** RESIDENTIAL SKYSCRAPERS AND LOTS OF WATER, THE PALM DROPZONE IS NOT FOR BEGINNERS



Nasser Al Neyadi, the founder of Skydive Dubai, makes his first jump from the GliderFX Fox. His three-finger salute symbolises 'Win, Victory and Love' (GliderFX)

front of the high-rise developments of the Dubai Marina. In the years that followed, the runway has been lengthened and now most of the 700m runway is built out on stilts into the Persian Gulf.

Surrounded by the world's tallest residential skyscrapers and lots of water, the Palm dropzone is not for beginners, and so a second area was developed for student training, 35km inland from Dubai, known as their Desert Campus. This desert venue was catapulted onto the world stage in December

> as it played hosts to the FAI Gliding Match Racing contest as part of the 2015 World Air Games.

It's no secret that the oil in the Middle East will run out eventually, and Dubai has shown the way in diversifying its economy. As part of the city's wider marketing initiative, Skydive Dubai is used as a promotion tool, to show that Dubai can be a very cool place to live, work and play, so they are always on the lookout for items that can capture the imagination and keep themselves one step ahead on YouTube, Twitter, Instagram and Facebook.

The Al Ain Airshow had brought our wacky new 'Glider Skydive' stunt into the local media spotlight for the first time, but we didn't really know what to do next. Our lead skydiver

Alain Dony had seen the positive reaction of his home skydive centre in Spain, and suggested it would be interesting to Skydive Dubai. He was not wrong... One jump later, with Nasser the boss and the answer was an unequivocal "YES! - come and play".

We had proved the concept and safety of a vertical glider exit, and now had the chance to develop some ideas, particularly flying with wingsuits.

Our own team skydiver, Andrés Vasquez Maso, had made several wingsuit jumps during our initial testing in Spain, and we identified then that the biggest challenge was to match our glide performance.

Some wingsuit glide data came from a chance meeting with James Boole and Ulf Munkedal, two of Europe's best wingsuit flyers, who were training for the FAI Wingsuit World Cup. Their GPS logger traces showed L/D ratios of 3.5:1 and a min sink of around 2,500 fpm, a quarter the rate of a regular skydiver in freefall.

Nothing is totally new in aviation, and we found some encoraging information from the previous glider vs wingsuit formation attempts.

The first was Martin Kroke, a gliding instructor from Gap-Tallard in France. He started flying his H 101 Salto with Red Bull and Salomon sponsored wingsuiter Loic Jean-Albert in 2006 and was first to identify that getting enough drag was everything. The Salto has trailing edge brakes and a drag parachute, but even these were not enough.

His solution was to redesign a larger drag chute and, in 2007, the pair made several descents together from 4,000m. Martin flew lead position and told us 145km/h (80kts) was the best speed to let Loic dock (grab hold) onto his wingtip in descent.

The other team to achieve a similar stunt was the Red Bull Blanix, who transferred a skydiver between gliders in 2010, and achieved a big formation in 2012, the Blanik L13 pair in a mirror formation with five wingsuit flyers off their wingtips. It was



Martin Kroke was the first glider pilot to control his drag sufficiently to match the performance of a wingsuit (Martin Kroke)



The Red Bull Blanix team joined forces with their wingsuit team to achieve some incredible stunts in 2012 (Red Bull)

interesting to see that the Blaniks achieved sufficient drag to match the wingsuits by a combination of airbrakes and flaps without the need for extra drag or modification.

Analysis of their wingtip smoke in Red Bull's photographs showed a glide angle of 29 degrees (1.8:1), worse than we had anticipated. To quote Blanix's lead pilot Ewald Roithner: "The thin line between freefall and flying is where you want to meet."

We reasoned that as the Fox would have a larger range of speed and performance, we would try with the wingsuits leading, the glider to follow behind.

Fast forward to January 2016, and we had the best wingsuit athletes in the business all fired up and ready to go: Julian Boulle, Greg Shelton and Micah Couch of the Skydive Dubai wingsuit display team.

We started our experiments from the Dubai Desert strip, aerotowing to 10,000ft and ejecting the wingsuiter from the glider in a vertical upline to best match speeds and energy on exit. However, just as we had feared, the challenge was to manage the drag of the Fox. We could meet up quickly after the exit, but despite using all the tricks I knew, like taking full airbrake in the exit manoeuvre and flying a spiral descent and taking the outside line, I could not stop the Fox accelerating past the wingsuit in the steep glide – we needed more drag!

We considered making a drag chute, but could not modify the Fox without EASA approval, so our solution was to add "carry on drag" by keeping a parachutist in the rear seat of the glider with the canopy removed, with their arms out in the airflow to increase drag, the wingsuits getting a lift to altitude in a separate jump plane.

Alain Dony tried the drag-man position



first with a camera jacket, a skydive suit with small under-arm fabric webs, but it still was wasn't enough drag, and it proved almost impossible for him to hold his arms out for more than a minute.

The chief of Skydive Dubai's special projects, Alan Gayton, was keen to experience the formation from the glider's perspective, and proved to be the perfect combination of 6ft 1in man mountain with a technique to use a full wingsuit and brace the stiff tip battens against the cockpit sides to reduce fatigue.

Our Pawnee did a great job towing, and climb rates in lower levels were quite normal, but, despite leaning the mixture, the climb rate dropped to barely 100fpm near 10,000ft so the time from 8,000ft to 10,000ft almost doubled our time to climb.

The drop sequence was carefully 3



Julian Boulle jumps out of Skydive

Dubai's Twin Otter to formate with

Alan Gayton and Guy Westgate in

the GliderFX Fox over the Persian

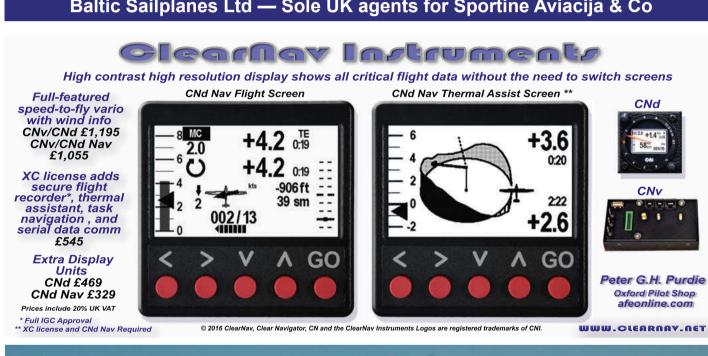
Laura Sadler on exit from the Fox over the Palm, still capture from GoPro mounted on her wrist

Left: Glider vs wingsuit formation captured with latest 360 spherical Ricoh Theta S camera (GliderFX)

THE PERFECT
COMBINATION
OF 6FT 1IN MAN
MOUNTAIN
WITH A
TECHNIQUE
TO USE A FULL
WINGSUIT











planned, with the Twin Otter drop plane formating to the right of the tug, so the open door was facing the glider combination. The Otter pilot would start a countdown on the radio, and 'spot' the correct release point, with the glider releasing at -8 seconds, the tug turning away at -4 and the Fox accelerating towards the open door of the Otter, about 150ft below with full drag established at -2 seconds before the three wingsuiters jumped.

The first couple of jumps got very fast, with huge rates of descent. At speeds above 100kts the wingsuit's efficiency was down, and it felt like a race to the ground.

The wingsuit pilots talked together with Bluetooth biker headsets, but, despite trying to include the Fox, we never got the headsets synced together on the climb, perhaps due to the range, and the fast descents were too busy to be fiddling with Bluetooth connections.

The following jumps went much better, the wingsuit guys flew slower and more efficiently, and I could get the glider close enough that we could lip-read the basic instructions 'turn' and 'level'. It was an epiphany moment!

From our release at 10,000ft, we were in close formation by 9,000ft and, with a brake-off height of 4,500ft, gave 60 seconds of formation. It was intense!

The first flight from the Skydive Dubai Palm runway was impossible to exaggerate. Nothing you could have said prior to the flight would have stopped me shouting at the top of my voice – "Wow!". You simply can't overstate the visual impact of aerotowing towards a man-

made 1,300ft cliff of the highest residential skyscrapers in the world, along the Dubai Marina. Then, just when our senses were at bursting point, the 2,722ft tall peak of the Burj Khalifa, the tallest structure in the world, poked above the inversion to the North East -"Double Wow". Climbing higher, as the impact of flying so close to the towers mellowed a little, it was replaced by the splendour of the view, as the full shape of the Palm Jumeirah grew beneath. The huge man-made island started life in 2001, and has become the iconic symbol of Dubai, visible from space. The Palm is the only island development that survived the 2008 financial crisis, with the bigger Palmshaped Island at Jabal Ali still undeveloped and the World and Universe archipelagos being slowly reclaimed by the sea.

Over the following week, we made a number of flights, both ejecting skydivers and flying with wingsuits. The extreme adrenalin kick softened a little after the 20th aerotow, but every so often we would all pinch ourselves to check it wasn't all some amazing dream.

Opportunity in Dubai is everywhere, particularly for the wealthy, but the country is also full of contradictions and contrasts that can be frustrating. The airspace is almost totally closed to recreational flying, and there were significant difficulties to overcome before making the most basic of aerobatic glider flights. That said, with the help of Alan Gayton and Michael Rudolph from Dubai's CAA, we achieved the remarkable and had probably the most exciting week of glider flying of my career.

The GliderFX Fox and Pawnee on another tow to 10,000ft to meet up with the Dubai Wingsuit team. The tail cam photo shows the high rise of Dubai Marina and the world's tallest building, the 2,722ft tall Burj Khalifa on the left horizon (GliderFX)

■ A huge thank you to all at Skydive Dubai, to GliderFX team members Tim, Gally, Paul, Andres and Alain, and to our sponsors, Hayward Aviation, Aerobility and Total Objects. Thank you!



■ Guy Westgate has been flying aerobatics in gliders since 1987, and now flies the MDM-1 Fox, the only glider purpose built to train aerobatics. Through the disabled flying charity Aerobility, Guy offers pilots of all abilities the chance to experience the thrill of learning aerobatics www.gliderfx.com

TOGETHER WE CAN KEEP SAFE

A visit to Lintonon-Ouse provides an insight into RAF measures to avoid an Airprox, and ends with an unforgettable flight in a Tucano. Steve Pozerskis reports



Ready for Tucano flight: (left-right) Steve Pozerskis, Olly Peters, Andy Holmes and Chris Pote (© Crown Copyright)

NOT JUST A
QUICK LINE
AT THE END
OF A SLIDE,
BUT RATHER A
LARGE PICTURE
OF A GLIDER
WITH "BEWARE"
WRITTEN NEXT
TO IT!

ATE in 2015, an email arrived in my inbox from Olly Peters, a friend I had met back in 2006 at my first Juniors.

The email suggested he might be able to sort out a tour of RAF Linton-on-Ouse and possibly a flight in a Tucano. In return he wanted to showcase what the RAF were doing to help minimise the chance of an Airprox with a glider.

We exchanged emails over the winter and finally a trip up to Yorkshire was organised. Alongside me was Andy Holmes.

We flew up to Leeds Bradford the night before and enjoyed (slightly nervously knowing what the following day could have in store) a curry with Olly and his

family in York. Both Andy and I felt a mixture of excited and apprehensive about what lay ahead. An early night followed.

The following morning, a day we would never forget began...

On arrival at Linton, the Tucano gate guardian filled the view as we waited for our airside passes. About now it really hit home what was going to happen!

Firstly we were given a passenger briefing regarding the Tucano. The very '90s' video covered everything from getting strapped in to getting out using

the ejector seat. I'm not sure exactly how much of this we took in – there was plenty to remember – but it gave us a taste of what to expect.

After this briefing, our first official engagement of the day started. We were allowed to sit in on the morning briefing. This briefing included the various flights that would be happening, met, NOTAMs, etc. Both Andy and I were surprised to see what a big deal gliders are to the RAF. Numerous slides regarding gliding were included within the presentations – and not just a quick line at the end of a slide, but rather a large picture of a glider with "BEWARE" written next to it! The met presentation

included where the wave/thermal activity may be and consequently where the gliders may be congregating, whilst the airspace presentation included information on where any tasks/competitions may be located. Despite it being February, this was great to see.

We then got kitted up and had a medical. After seemingly hours of waiting we finally sat down with a sandwich and promptly got taken to a room for the briefing – our 3pm flight had been brought forward to 1pm. The sandwich didn't go down too well, with the nerves/excitement starting to ramp up.

Squadron Leader Chris Pote led the brief – again there was a great deal to take in, but the idea was that we would taxi out, formate on the runway and then take off. Following the initial climb out would be a 20-minute tail-chase*, then 15 mins of aerobatics, followed by a number of low-level runs starting at Pately Bridge in the Yorkshire Dales, before heading back to Linton for a few circuits (and allegedly we could have a go at landing one of these beasts – gulp!).

Finally the flight – taking off in formation with Andy in the other Tucano, tail-chasing over the Vale of York and dry bombing some dams in the Yorkshire Dales is the most fun I have ever had. I have never felt such a mixture of emotions – excitement, nausea, 6G, laughter, nearly blacking out. I just remember pulling out of a loop at 250kts, chasing Andy into a second loop pulling with both hands on the stick and my instructor shouting pull harder!

My respect for fast jet pilots has grown immensely. I like to think that I am a reasonable pilot, with nearly 1,000 hours in gliders, but this was a real advertisement for Human Factors and how the physicalness/mental work of flying can completely destroy your ability to concentrate. I was a total wreck when I landed.

So what did we learn? This was a very interesting trip for both Andy and me. The flight was just amazing, but we never forgot the real reason for heading up there – which



Steve Pozerskis and Andy Holmes have increased respect for fast jet pilots after their Tucano flights (© Crown Copyright)

is the very real danger of gliders meeting RAF aircraft in the sky and what can we do to mitigate this.

We spoke with as many of the pilots as we could during our day and they all had a different story about gliding, whether they had been up before at Sutton Bank, or perhaps they had noticed a glider in wave at 12,000ft over the Vale of York recently – rest assured we are very much at the front of their minds.

Whilst on our tour, it was very noticeable that they were using FLARM radar. In the Ops rooms, the mess and even in the Air Traffic Tower a large TV screen with the "Spot the Glider" website would be showing the whole of Yorkshire and the various FLARM-equipped gliders that were floating around. The RAF have worked very hard to integrate this system despite it not being "military tested". I certainly didn't realise they used it. I am a huge fan of FLARM anyway, but this has really cemented my desire for everyone to have FLARM in their gliders if they are leaving the vicinity of the club circuit.

Whilst speaking with the various pilots and air traffic controllers during our day, the one big issue they all seemed to raise was "our" use of MATZ. How many of us have thought "it isn't a penalty zone so it doesn't matter"? It does matter. Just a courtesy call seemingly makes a world of difference to these pilots and controllers, whether you are in or near the MATZ.

So what did Andy and I take away from

our day. Firstly, thank you to Olly for sorting it all out. Secondly, I am just in awe of what the trainee pilots go through. We are exploring career links between Junior Gliding and the RAF at present. I will certainly be encouraging any keen Juniors to speak with the relevant people.

Finally (and most importantly) the RAF are really making an effort avoid us. In return, they are desperate for us to use our radios more and keep their Air Traffic Controllers informed of our whereabouts and our potential movements. I promised I would spread the word.

Thanks to Olly Peters and Sqn Leader Chris Pote for showing Andy and me around the base and Yorkshire's airspace!

* Tail-chasing is an aerobatic 'follow the leader' exercise used as a building block towards air combat.



A slide from the met briefing regarding gliders

ANDY HOLMES COMMENTS:

CLEARLY this was a chance in a lifetime to experience a taste of military flying training in the front seat of a Tucano with experienced instructors, both of whom are ex-Tornado guys.

I found the whole day fascinating and came away impressed with many aspects of the setup at Linton. Flyingwise, like anything, my experience in the Tucano just made me want to go back, do some more and refine the skills we'd only had a brief introduction to.

From a gliding point of view, it was obvious to me that the relationship between the local gliding clubs nearby and RAF Linton is one of a role model in both directions. It was clear that good communications between the RAF and the gliding clubs, combined with use of FLARM radar, made for a safe working relationship.

The main things I'd take away are that on a club level we should all be aiming at a close working relationship with our neighbouring airfields. There really is no downside and you might be pleasantly surprised as to the level of cooperation that is possible.

On an individual level it was a good reminder to always call on the radio if passing near a MATZ or over the top of Brize, with your position and intentions. This aids situational awareness for all, and they might be watching you on FLARM radar anyway!

A big thank you to Olly Peters, Chris Pote and the rest of the Linton team for an amazing day.

■ See also *Yorkshire Initiative*, pp34-37, Aug/Sept 2011

TEENS SPREAD THEIR WINGS

Katharine York
reports why
Lincolnshire GC
teamed up with a
training facility to
give teenagers a
taste of gliding



Paul Kerman instructs in the BGA simulator (James King)

- Three companies working locally provided sponsorship to cover the costs of putting on this and the next event.

 The funding from 3Q Industrial Supplies, Skyform and Engie Fabricom made it possible to hire the simulator, insure the glider and meet all the other costs, so that the event could be free to attend.
- In addition to the radio interview, the local newspaper sent a reporter and the local digital broadcaster sent a cameraman to film an item for the evening news.

OULD the thrill of gliding lure youngsters into careers in engineering? That was the thought when Lincolnshire Gliding Club teamed up with the engineering training facility HCF CATCH at Stallingborough, Lincolnshire.

Back in November, I tried to persuade the CATCH Education Manager, Sabine Homes, to take a flight and encourage girls to try flying. Despite her serious phobia of flying she was tempted – so tempted that we agreed to put on an event in the spring to give teenagers a taste of what gliding is all about. Our hidden agenda was to get the youngsters

involved in team building, safety training and engineering at the same time!

The plot we hatched was to hold an activity day, targeting 14- 19-year-olds, with three main hooks – building a glider, flying a simulator and hearing about engineering apprenticeships.

It all went ahead during the Easter holidays in an event we branded The Wright Stuff. Forty places were offered to local

students, and the event was fully booked a month in advance through a combination of direct mailing to schools and word-of-mouth. Girls were particularly encouraged to get involved, being as poorly represented in engineering as in gliding: 10 signed up, making 25 per cent of the participants.

HCF CATCH has good connections with the local schools and colleges, and a dedicated marketing officer, which all helped in spreading the word. AIS Training let us have full use of a room big enough to pass as a hangar, providing dry, warm, well-lit and wind-free conditions for rigging. That said, it looked an awful lot smaller once a glider trailer was towed in!

LGC couldn't afford the risk of damage to the club's gliders, so a cry went out for an unflyable glider, with the thought of offering an active retirement to one of the ASK series that had failed its glue inspections. In the

end, a very elegant – and potentially flyable – Carmam and trailer were received on loan from Dave Mason of Mason Restorations. Fearing damage, we removed the canopy and stored it safely lest any harm befall it.

As the day neared, final preparations included towing the glider to the venue, followed by a six-hour round-trip to retrieve the BGA simulator from Bicester. Then with a little more time shunting trailers around the event space and head-scratching over the simulator instructions, the venue was ready to go.

The day started with a live interview on location, with David Talbot, CEO of HCF CATCH, and myself, as secretary of LGC, speaking on Radio Humberside's Breakfast Show. Then at 9am, the first batch of students arrived.

After an introduction from David Talbot to set the scene and encourage them to think about the diverse opportunities offered in engineering, they were shown through to the workshop. We divided them into two groups of 10, and they spent about an hour with either the simulator or glider, switching over after a short break for refreshments.

I ran a quick manual handling training session and got my team started getting the Carmam out of its trailer and rigged as if for flight. Meanwhile, on the other side of the room, LGC member Paul Kerman gave a flight briefing and started on the first of many introductory flights.

We were warned beforehand not to expect much from our groups, and it's true that they were all shy both with us and each other. With a bit more time in the day perhaps a group ice-breaking exercise would have got them going sooner. Still, they all pitched in willingly, and coped more patiently than many adult teams I have seen trying to get wings to line up – perhaps because they had no expectations! The Carmam is so light that by the end of the day even the more slightly built were taking the load, but the wings were fiddly to get in place, and having so many helpers probably didn't help that







Top: team effort to load the wing. Above left: CATCH education manager Sabine Homes still a bit terrified. Above right: making the connections (James King)

stage - give me a K-6 or a K-8 any day!

Over at the simulator, they were getting the feel of the controls and marvelling at the size of the cockpit. Some had flown with the ATC, but most were completely new to gliding and several showed real promise.

We closed the session with a summary of all the benefits of gliding, and the possible careers in aviation they might consider. They walked out delighted, and the organisers – although exhausted – felt much the same, and are already considering a follow-up. We hope to see some new faces at gliding clubs in the area and signing up for apprenticeships soon.

Our heartfelt thanks to all those involved.

The next event, High Flying Girls, will encourage more women and girls to try gliding. Twenty new flyers take to the skies above Lincolnshire on 31 May.

MAKING IT WORK

THE idea will generate interest both with schoolchildren and media. Make the most of the chance to talk about how easy and exciting it is to get involved with gliding.

Use who you know. It helped that I had a variety of ways of getting attention from schoolteachers, as I have hosted a number of work experience placements and industrial visits in my worklife, and I know people who go into some of the more deprived schools in the area who are desperate to raise aspirations amongst local youngsters.

Find a partner with a shared or overlapping interest. In this case it was raising the profile of engineering – partly through a business need, mostly through a passion for the field.

Get several volunteers from your club to take part, as gliders can be fiddly beasts and sometimes need firm handling by a small number of experienced people just to get the last bits together! A few more people on site would also have spared my voice!



HELPING HAND WITH TRAINING

Lasham's Jordan
Bridge explains
how funding helped
him to progress to
assistant instructor



Jordan Bridge's first flight as a BGA assistant instructor



AIR PILOTS

■ The Honourable Company of Air Pilots and the BGA are working together to provide funding for a number of young gliding instructor training bursaries. For more information see: https://members.gliding.co.uk/library/juniors/hon-co-air-pilots-instructor-course-bursary-application/

AVING gone solo at 15 and moved up through the levels of Bronze and Silver at Lasham, I have always thought of becoming a gliding instructor to give something back to the sport which has given me so many opportunities.

Since qualifying as a BGA Basic Instructor in early 2015 I have been very privileged to take nearly 100 people for their first taste

of flight at Lasham, but I still wanted to become more deeply involved with gliding instructing and sharpen my own flying skills. So I jumped at the chance when my CFI recommended me to become a BGA assistant instructor and I was hugely grateful to the BGA and the Honourable Company of Air Pilots when I was told I had received the funding to do the training, which may

otherwise not have been possible.

Unlike the old BGA instructor course, the new course spans many months, divided into modules. Classroom briefings are now a key focus of the course with the entire first module, which I carried out in October with the BGA, focusing on teaching and learning to maximise the benefits to student pilots. This was thoroughly interesting and I am now far more confident teaching using a whiteboard than I ever was when I was at college a year or so ago, though like many gliding instructors my artistic skills are still work in progress!

The second module is the longest one and was based around flexible club training, whereby you learn, practise teaching and sign off a huge amount of the gliding syllabus both in flying exercises and ground briefings. I did this module over a period of four months with my instructor coach Nigel Pringle, who I am deeply grateful to for giving up many afternoons and evenings to share his expertise and help me develop my skills through this part of the course.

Then it was back with the formal BGA third module that looked at more theory, including crew resource management and methods

of teaching, as well as a small assessment to ensure that the training for the second module, done with the club, was coming together. At the end of the weekend, the old Bronze theory exam papers had to be retaken at a higher pass mark to ensure that we still knew the theory!

The time between the third and fourth module allowed for some polishing up of my teaching with Nigel. Then there was a chance to practise soaring training, which is, of course, a core part of our sport, but unavailable in winter when most of the training took place.

With everything in place, I spent five residential days on the fourth and final part of the course doing multiple whiteboard briefings, simulator practice and lots of real instructional flying when the weather allowed. This included a practice type conversion flight/briefing on a Capstan! The final two days of the course were spent roleplaying different students, from ab-initios to qualified pilots, which increased my confidence and ability to be able to cope with any student I'm given.

My thanks to Dave Bullock, who ran all the BGA delivered modules, and regional examiners Allan Smith and David Williams, who gave up their time voluntarily to help coach and improve our teaching skills by roleplaying.

The final formality of the skills test went without a hitch and, as I write this, I've just had my first few days teaching as a newlyqualified BGA Assistant Instructor. Though long and at times challenging, the course has been very useful and has certainly given me the skills I need, both in the classroom and in the air, to be able to teach people to fly effectively. It's also taken my own handling skills to the next level. I look forward to spending many years to come instructing and using my position to enable young people of all backgrounds to consider gliding as a first route into aviation and learning to fly. It is vital we have enthusiastic young people in the sport to keep the gliding movement going for years to come!



Ed Eveson gets to grips with a 747 simulator (photo courtesy of the Royal Aero Club Trust)

FLYING START

Kieron Shaw explains how a RAeC Trust bursary helped a sixth-former take the first steps to becoming a commercial pilot

T THE age of 13, Ed Eveson, an enthusiastic member of the air cadets at Diss, joined Norfolk Gliding Club and began to learn to fly a glider. At 16, he gained a solo endorsement and a Bronze gliding badge.

A member of the sixth form at Wymondham High Academy, Ed then starting working towards his Silver. To enable him to meet the costs, he was awarded a prestigious Bramson bursary by the Royal Aero Club Trust, under the Trust's Flying for Youth programme. Ed's dedication allowed him to make rapid progress and his skills were such that he participated with success in the 2014 Junior National Gliding Championships.

However, whilst enjoying gliding and studying for his AS and A2 examinations, Ed was also carefully preparing for a future career in aviation. Gliding gave him the opportunity to meet, fly with and learn from other enthusiasts who were commercial pilots.

Ed carefully absorbed all that those in the commercial aviation world could offer and, on finishing his A levels, decided to apply directly to join the British Airways future pilot programme. Having done so, he found that selection to the programme took some three months and involved numerous interviews, tests and group exercises to determine his flying aptitude and potential for flying with British Airways.

Of some 3,000 who applied to join the programme, Ed was one of the 72 who were successful and started training in January 2016.

Ed is now in New Zealand for 14 months, whilst he initially undertakes the ground school phases, and then graduates to flying and obtaining a Commercial Pilot Licence. He should then return to the UK to obtain an instrument rating. Following further training Ed hopes, within two years, to be a first officer on the Airbus 320.

He puts his fortune at being selected for the programme down to his passion for gliding, the most helpful bursary from the Royal Aero Club Trust, and very careful preparation for a future career in aviation. He has done extremely well to be selected for the future pilots programme and we wish him every success for the future.

SUPPORT FOR OUR CHAMPIONS

■ The Great Britain team at the 2015 World Junior Gliding Championships, held in Australia, was the most successful of any national team taking part, and was awarded the Bronze team medal. Tom Arscott was awarded the Gold medal and Sam Roddie the Bronze medal in the Club Class; Matt Davis came 10th and Mike Gatfield 13th in the Standard Class.

All four had previously been awarded bursaries by the Royal Aero Club Trust under its Flying for Youth scheme. Tom was awarded an initial bursary in 2009 and a follow-up bursary in 2015; Sam was awarded a bursary in 2012; Matt was awarded an initial bursary in 2008 and a follow-up bursary in 2018; and Mike was awarded an initial bursary in 2012.

Each of them had applied as part of strong fields for these bursaries and have previously given credit to and thanked the Trust for recognising their skills and dedication, and for providing the means to help them develop their gliding skills.

The Royal Aero Club Trust wishes all four the very best of fortune with their future competitions.

Tom will be defending his World Junior title in 2017 in Lithuania. Sam Roddie will no longer be eligible to compete as a junior, but hopes to compete seriously in the senior ranks. Matt Davis will also now compete at senior level.

■ Details of the Royal Aero Club Trust Flying for Youth bursary scheme are available at www.royalaeroclubtrust.org

Nick White, chairman, Peterborough & Spalding GC: 49 has grown to 62 (9.8 per cent trial lessons)

Previously, although we had a pretty good flow of trial lesson customers, they would mostly take one or two flights and then drift away. To try to counter this, we have put a special offer in place, whereby if somebody takes out full membership, we give them their first five flights free! (Subject to a limit of 2,000ft aerotow and 30 minutes flight time.) This means that after their first few flights they, as members of the club, are much more likely to keep coming back. So far the idea is working well and appears to be the main reason for our success in membership.

■ Dave Latimer's analysis of the club figures for 2014-15 has established that 54 per cent of our clubs are at least stable, and a quarter grew significantly. In addition to looking at individual club experiences, we need to understand current opportunities. Gliding gets around 18,000 new people into gliders each year, but almost immediately loses contact with around 17,750 of them. In 2014, 1.4 per cent (241) of the 18.000 managed to make it to solo. According to George Metcalfe's analysis, if gliding is to grow, we need to double this figure to around 500. The question is, which should we double; the 18,000 trial lessons or the 1.4 per cent conversion rate?

HOW CAN CLUBS BUCK THE TREND?

SHALL we try to make the unusual more ordinary and buck the 1.4 per cent trend?

George Metcalfe, a member of the BGA Executive, has been analysing membership trends and age distribution. He presented his findings at the Club Management Conference last November with the caveat that the past is not a guide to the future. That said, the stark fact is that most glider pilots are over 50 and will retire in the next 30 years. George modelled a forecast, whose main assumption was that each year 5 per cent of pilots over the age of 50 leave the sport. It shows a downward trajectory. At the moment, thanks to the dedicated work of club volunteers, we (gliding) are currently just above the forecast. Good news, but not quite good enough.

Dave Latimer, chair of the BGA Development Committee and BGA Executive member, has been analysing club returns to gain a greater understanding of membership figures in clubs. The figures used here are taken from the latest available analysis of club returns (see pages 66-67). These show 18 clubs growing by more than 10 per cent. This compares with 2014, when 20 clubs grew by more than 10 per cent. Based on those findings, we spoke to some clubs who have been doing something different and getting these results. We will be doing the same based on the 2015 returns. In 2014, 20 per cent of gliding clubs achieved higher than average rates of conversion of trial lessons to new members. Here is what some of them had to sav.

Competition

organization

Social aspects

*Local/international

Professional involvement

Bob Grant, chairman, Darlton GC: 61 has grown to 74 (6.8 per cent trial lessons)

One thing we have done over the past few years is to write to existing members who don't renew, and also to prospective members who fill in an application form, but don't follow it up, asking them to tell us why they don't wish to continue.

Richard Hannigan, chairman, Trent Valley GC: 62 has grown to 75 (2.5 per cent trial lessons)

We now have a business plan and committee members work towards it. Everybody on the committee has a voice and all are encouraged to operate to their potential. We communicate reasonably well with members and respond to their questions and concerns. We have recruited members by actively marketing the club and we have retained them by providing good quality instruction and by trying to make them feel valued. We are progressing steadily, but are never complacent as it does not take much to reverse a positive situation!

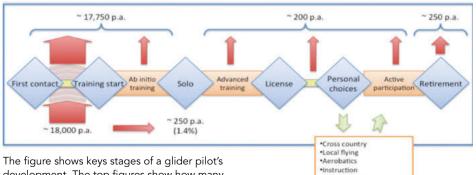
Lisa Humphries, chairman, Devon & Somerset GC: 144 has grown to 165 (5.7 per cent trial lessons)

DSGC has seen a very good growth in new members and income derived from trial lesson flights. We believe this is partly due to the friendly atmosphere our members create, our online booking system and that, even though we are a volunteer group of members, we pride ourselves on our professionalism.

Bob Godden, chairman, Essex &Suffolk GC: 101 has grown to 112 (2.9 per cent trial lessons)

Essex & Suffolk has had a bumper year that has seen an increase in turnover of 25 per cent, an increase in new members and more flying by existing members. A significant number of new members are in the age bracket below 40. New members are asked why they joined ESGC. The answer? "Because they are a friendly club and they fly a lot."

Alison Randle, BGA Development Officer



The figure shows keys stages of a glider pilot's development. The top figures show how many people we are currently losing at each stage; the bottom figures show entry figures for trial lessons and first solos



The second Wenlock Olympian Gliding Games 9th - 16th July 2016

A seven day event with a single handicapped class, open to any wooden or fabric covered glider. Hosted by the Midland Gliding Club at the Longmynd, Shropshire. Entries are invited for 2016 by visiting olympiangliding.com. On-site accommodation, camping, bar and catering and a possible bungee! Call 01588 650206 for further details.



PHILIP WILLS MEMORIAL FUND

SUPPORTING GLIDING IN THE UK



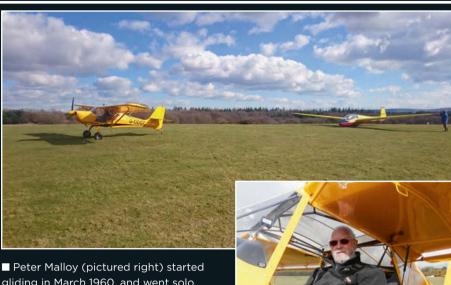
The Philip Wills Memorial Fund has cash available now to lend to gliding clubs for capital projects. Key features of the loans are:

- Negotiable as to length and amount of loan
- Requirement for a "business case" to be presented to trustees
- Security usually taken on asset bought + personal guarantees
- LOW interest rates lower than you would pay to a bank
- Early repayment not a problem
- Minimal legal costs
- Easy access to lenders for discussion

More information is available on the BGA website. If you want to just discuss informally, please email Steve Lynn at Stephen@srlynn.co.uk, or please just download the application forms at http://www.gliding.co.uk/forms/clubmanagement/PhilipWillsMemorialFund-ApplicationForm.pdf

We look forward to hearing from you.





■ Peter Malloy (pictured right) started gliding in March 1960, and went solo with the Air Cadets after just one and a half day's instruction at RAF Hawkinge in Kent. He returned to gliding in the 70s and has been a member of various clubs around the UK.

I first met Peter in 2000, when he joined Dorset Gliding Club and became our CFI. He later joined a Motor Falke Syndicate with three other members, and also formed a K-6E syndicate.

Peter had been a tug pilot for many years prior to joining Dorset, and Monday 7 March 2016 saw a milestone of sorts, when he completed his 3,000th aerotow as a tug pilot, done at various clubs around the UK.

Peter has aerotowed in a variety of aircraft, including Super Cubs, Pawnees, Citabrias, Rallyes, Robins, Beagle Husky and, latterly, our new <u>EuroFOX. Add to this his</u> nearly 5,000 instructional flights in many different types of gliders, as well as a Gold C and two Diamonds, plus flying (to date) 391 individual gliders/motor gliders of 138 types, and you get a picture of someone who has been very busy in a sport that he loves.

Peter has now stood down after nearly 16 years as CFI, handing over to Nathan Hanney. I am sure that all members of Dorset Gliding Club will join me in a big vote of thanks for the time and effort that Peter has put into the club. We wish him many more years of flying with us.

Colin Weyman, Dorset GC



Above: Jack Carter went solo at Darlton on 23 March, less than 24 hrs after his 14th birthday. Jack is the first Darlton member to make his initial solo by aerotow. He then went on to solo by a winch launch after checks by the CFI

Below: K-13s in the snow during instructor training at Dartmoor (Rick Wiles)

Bottom: Dartmoor Gliding Society has recently refered its boundary, courtesy of part funding by a Sports Lottery grant (Martin Cropper)

Below left: Aspiring tug pilots - Joshua Flannery (right) with his mate Logan Clayton-King. Joshua is Grandson to Tony Flannery, chairman of Burn Gliding Club (Tony Flannery)















■ 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

Top: H5 flying the cliffs at Beer Head (Matt Wright)

Top right: Mick Wards took this photo of his rear view mirror while towing from Trent Valley

Above: Students at the 2016 Sea Cadet Bronze Wing course at SCTC Weymouth. All the cadets managed to get a flight with 727 Squadron before RNAS Yeovilton closed for the Easter holidays. The top student this year was AC Ashley Mason, who received the Daedalus Trophy and Sekonda watch donated by Time Product (UK) Ltd and a flight bag donated by Pooley's Flight Equipment from Commanding Officer Sea Cadet Aviation Lt Marc Pether RNR. Ashley was invited to the Silver Wing course at Lee on Solent in May, where he will get experience on the Grob motor glider (Carl Mason)



■ Neil Braithwaite, from Lakes Gliding Club, flew the Slingsby T-49 Capstan, restored by Peter Redshaw, on Saturday 9 April - exactly 40 years after his first solo in this very machine. Neil, 16 at the time, said his first solo flight was quite eventful, as he was shot at with a .22 rifle. The bullet was later found lodged in the rudder! There were no such dramas 40 years on, with Neil remarking that the T-49 flies nicer now than all those years ago.

JUNE/JULY 16

VOL67 NO3

CLUB NEWS

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

OUR faithful friend, Kilo Delta Bravo (K-6cr) has had to be retired. It served the club well with quite a lot of Silver badges to its name, but with glue problems in both wings it was time to sell. The new Discus is proving its worth and is very popular. Having a cracked canopy last July, our Astir is coming back on-line just in time for the season. We are now planning for our fourth family day on Saturday 2 July and hope it is just as successful as the past three.

David Sibthorp

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

WE have enjoyed our first BBQ of the year and welcomed T-61 GBUNB. Aden Jones and Matt Dews both completed Bronze, while Mike Swanson converted to our Duo, and Ian Harris and Simon Foster converted to a Twister. We celebrated Tony Barber's 75th birthday, but said goodbye to Derek Findlay, who sadly passed away. Our ridge must miss him in his K-6e. Finally, congratulations to our CFI Ian Harris on receiving a Diploma for Services to Gliding at the BGA conference.

Ian Harris/Debb Hackett

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

WE are the proud owners of a new Skylaunch. We operated it in tandem with our old one for an afternoon and it is now signed off for use. In February we had our best attended safety evening ever, where various topics including tug upsets and the avoidance thereof were discussed. We say goodbye and thanks to Will Ellis and Suzie Edwards, who are departing for Lasham to prepare for the Club Class World Championship. Workshop checks on our two-seaters are progressing, and we hope to be flying our two Astirs very soon with our rejuvenated K-6.

Chris Basham

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

A GREAT start to 2016 for BGC with Pete Harvey, Dave Watt and Derren Francis being selected for the 2016 World Championships. Freddie Turner has been selected for the Junior Development Training Squad and Martin Clark was joint winner of the BGA's Rex Pilcher Trophy. Thomas Fern went solo on 1 January, aged 14. A great member effort over the winter, led by Terry Mitchell, has brought several K-13s up to a first class standard. The UK Sailplane GP is running at BGC in July; with other competitions and a vintage event BGC is a great place to be in 2016.

Martin Clark

BIDFORD (BIDFORD) WWW.BIDFORDGLIDINGANDFLYING CLUB.CO.UK 520803N 0015103W

THANKS to the hard work by John Arthur, we have been awarded Community Amateur Sports Club (CASC) status, which will be a great help to our finances. Our Wings and Wheels event was a great success with a record attendance and a large contribution made to The Home Farm Trust, which is a local charity. Our competition is over subscribed and all we need is good weather conditions. Mike Pope

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

THINGS are much better at Talgarth now, with a drying out airfield giving us ridge, wave and a couple of 300km at the end of March. The expedition by the RN boys from Culdrose always seems to get the weather right and we all had some fantastic east wave flights up to FL135. At the AGM, it was clear that the club is going from strength to strength under the guidance of our chairman Martin Pingel and his energetic team. The new tug and glider workshop is nearly finished and looks great.

Robbie Robertson

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

OUR field is dry, our ridge is beckoning, the thermals are popping and we are planning for a record year. A busy programme of club weeks and a mini-comp task weekend are planned, with intensive weeks to help ab-initio and Bronze pilots make accelerated progress. A number of expeditions have been arranged to Scotland, down south and to central Spain, so we can hopefully fill our boots over the season. Congratulations to Bob Pettifer, our current chairman, who has been awarded a well deserved RAeC Certificate of Merit for his lifetime involvement in gliding.

Keith Clarke

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

AFTER a disappointing winter things are slowly picking up, with two successful flights to the IoW by the end of March. The winch storage building was completed, while efforts continue on other tasks. A number of people successfully completed Bronze theory tests after the winter lectures – congratulations. Four new cadets were selected for the sponsored scheme, with two more joining anyway. Previous cadets and others are waiting to complete cross-country endorsement flights before pursuing Silver. As I write, anticipation builds ahead of the Juniors visit in April. Jake Brattle and Steve Eyles will be sharing the weekday instructor role this summer.

Greg O'Hagan

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

THE club has had a busy few months. There has been some cross-country flying completed. We have ordered a Perkoz two-seat glider for advanced and aerobatic training. We held an extremely successful flying development week with the Loughborough students. Two hundred launches were completed in six days with a new solo pilot Quientin Cats, two resolos for Miles and Jamie, along with Alistair completing his Bronze badge and Richard passing his Bronze written exam. The annual dinner was well attended with lots of clapping at the trophy presentations. Our new CFI Rance Noon has taken over from Pete Uden. Danny Lamb

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

TWO EGMs were held in February to discuss remaining in CASC and, as it is unlikely that Selby District Council will give us a lease for more than 10 years, our future when or if the lease is terminated. It was decided by ballot that we will apply to leave CASC and that, on the termination of the lease, the majority would prefer to merge with another club rather than find a new airfield. The committee will investigate merger options. We welcome new treasurer Steven Hitchen, and thank George Goodenough for all his hard work. Finally, congratulations to Artur Klapa (Bronze).

Chris Cooper

(Left to right): Members admire their new Skylaunch winch at **The Park**; **Buckminster**'s Quentin Cats after his first solo (Lucy Wooton); **Cambridge**'s Wojciech Koziel sent solo by Mike Smith (Stefano Borini); Pete Harmer –10,000 launches, congratulates John Street on 20,000 launches at **North Hill**



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

POOR weather prevented winter flying for nearly four months, which is decidedly unusual, but the season started with a grand weekend at the end of February. Nil wind, but pure blue skies and sparkling snowfields along the ridge made for some memorable photos – see our Facebook posts for 11 March and 28 February. Our gliders also featured in a TV programme in the BBC Landward series, to mark the club's 50th anniversary.

Phil Hawkins

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

WE held a number of lectures in Cambridge Gliding Centre during winter and the start-the-season ground school in March with Kevin Atkinson, covering a wide range of topics, such as the physics of the air, implications for reading the sky, finding lift and avoiding sink and many practical tips. In summer we will be running a Women's Day again (31 July) and for the first time a Youth Day (24 July) with the aim of raising awareness of gliding. Congratulations to Wojciech Koziel, who was sent solo in April.

Julia Rigby

CHILTERNS & UCL (RAF HALTON) WWW.RAFGSA.ORG/CGC/ 514733N 0004416W

THE Chilterns GC has been very busy undergoing the organisational split between the RAFGSA Club and the Military Force Development Training Centre. Still co-located in the same hangar, members remain the same and the banter continues unabated. Thankfully, the processes are now agreed. Our fleet now comprises a K-21, K-13, K-18, Discus, Discus 2cT and Turbo Falke (tug), with the RAFGSA Ventus 2cT also based at Halton. Last year's ladder was the lowest cross-country kilometres entered and was won by Bryan Harvey. UCL have visited Portmoak with some good flying on what was forecast to be a dismal week.

Mick Boydon

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

THE club is open for seven-day flying. Courses have started and we're pleased to welcome back Don Puttock as course instructor. We

also thank Tim Barnes for his recent cross-country lectures. One Skylaunch has been refurbished and fitted with revised payout brakes and drivers have been re-trained. Our K-23 leaves for refinishing soon, and we collect our new K-21 in June. One of our K-13s has been re-covered and a private owner Jantar has been restored to flying condition. We are making final preparations for hosting the 20M and Standard Nationals in June. Finally we welcome new member, Roger Banks.

Frank Birlison

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

BACK in March/April the weather continued to conspire against us, however we have had some really good soaring days with tasks of various distances being completed in relatively quick times. Congratulations go to Chris Booth, who went solo and the next weekend followed this up by soaring for a couple of hours – well done to him. The beginning of the Easter weekend set out to be quite good, but storm 'Katie' soon put a stop to that. (What happened to smiley thermal?) However, we look forward to an improving situation in the coming weeks and the rest of the year.

Zeb Zamo

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

IN March, winching became our main method of launching, but aerotowing behind the EuroFOX is still popular. Members have started transitioning to our Discus CS single-seater and we've found a replacement for our K-13 with the purchase of a Puchacz. Congratulations to Jack Carter on going solo less than 24 hrs after his 14th birthday. Jack is the first Darlton member to make his initial solo by aerotow, and then soloed by winch! Next he converted to the Puchacz and went soaring for one hour. His exploits have been covered by the press, highlighting the success of the BGA juniors initiative.

Barry Patterson

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

WE have been busy in the air and on the ground, enjoying wave on 19 March. CFI Don Puttock has been trail-blazing the new modular Assistant Category Instructor training, which saw Peter Howarth, Mike Jardine and Rick Wiles being despatched to Staffordshire in February for the 'A' module, with the 'B' module back home at Brentor. We've re-fenced the airfield and undertaken the groundwork for a new, environmentally controlled workshop. We held our Annual Dinner on 11 March and have been celebrating the signing of a new, 25-year lease. Recent solo Paula Howarth has converted onto the K-8 – congratulations Paula.

Martin Cropper

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

BY the time this is published, our new EuroFOX tug should be operating; thanks to David Smith for building it. Strathclyde University GC is now operating from Aboyne and we welcome these new members. Congratulations go to Roy Wilson on the first 500km of the year on 22 Feb. We were pleased to accommodate members from Portmoak, who came to fly with us while their site was waterlogged. We are now taking bookings for pilots and expeditions for September/October. We already have a group from Germany booked, who will be towing their gliders to be with us.

Glen Douglas

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

IT has been a slow start to the thermal soaring season, with the first 300km flight on 31 March by Matt Wright. A good southerly blow on 2 April saw the 'Beach Boys' sampling the soaring on the cliffs, with more awesome footage. Congratulations to John Borland for his first solo, and Lizzie Westcott has converted to the Junior. Congratulations also on reaching significant milestones to long-standing instructors John Street (20,000 launches) and Pete Harmer (10,000 launches) within the same week. We welcome Matthew Williamson to the instructor team at North Hill, having completed his BI rating.

Jill Harmer

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

DUE to some very inclement weather and a very soggy field, we only started to fly in earnest in early April. We had a backlog of air



(Left to right): **Dorset**'s Jon Davies receives his wings; **Dorset**'s new CFI Nathan Hanney, with trainee Jean-David Kursner (Colin Weyman); **Essex** members with the club PW6 during an expedition to the Long Mynd; **Heron**'s Chris Woodward lands to complete a successful solo



Experience flights, and were glad to finally have the weather for a jumbo open day on 24 March. Everyone was busy from dawn to dusk. Almost everyone has flown the K-18, and likes it. Our CFI, Peter Molloy, handed over to Nathan Hanney at the start of April, and all of us wish them well. Our chairman Tim, with help, has kept the flying and membership fees the same as last year.

Colin Weyman

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

WE have at last had some lovely sunny weather, which has enabled us to enjoy some decent flying. We have also got more new members and had visits from pilots from other clubs. It was lovely to see them. The club had a later than usual get together in January and we all enjoyed a lovely meal and a catch up. Our flying week is a week earlier this year, 23-31July. We will see what the weather throws at us, and look forward to visitors coming to try our site. Hopefully some good flying too.

Wendy McIver

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

AT ESGC preparations for the coming season are in full swing. Our airfield has now nearly dried out and we are looking forward to the first 'get your currency back' course. Our engineers have been busy getting our gliders ready, and our winch has had a last-minute radiator replacement. Over the winter our working parties have been busy working on the field, clubhouse and vehicles. Also, our K-21 has had its wings re-gelled and the club is now on the FLARM network helping to report the position of enterprising pilots on the eastern end of the South Downs ridge.

Will Harley

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

EDENSOARING has gone upmarket for 2016 with fancy new static caravan accommodation for instructors behind the Fox, where Sabrina and Dave make all welcome après flying. Another privately-owned K-6 has appeared to join the growing ranks of members' gliders based on site, which include several K-6s, DG-202, Cirrus, Mini-Nimbus, Astir and others. Jane Dodd, wife of Mike, has volunteered

to develop a social plan this year. No free temporary membership July/August, but a serious incentive package for those wave climbs and triangles. We do need regular winch driver/members. If you are one, you will be very welcome.

John Castle

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

AT time of writing we are getting close to returning home for summer and we have set dates for the gliding weeks, for our open day, and also our dawn till dusk day. We hope that plenty of folks will attend. At the beginning of March, members visited the Long Mynd and we all had a good time with all but one member flying. We thank the Midland Gliding Club for their hospitality. The lovely breakfasts and the Malteser cake were particularly appreciated. Our fleet is looking good and we have courses available for newbies and more experienced pilots as required.

Cathy Dellar

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

OUR AGM in April showed what a successful year we had. Membership, turnover, equipment and profit all increased. A methane gas plant now sits at the southeast end of the runway, hopefully generating a thermal. We welcome Daryl Neave, Andy Sullivan and Stephen Bloomfield to the club. Three of last year's prolific users of the club's Astirs have bought gliders: Andy Greenhalgh (Glasflugel 304), Mark Wilshaw (Skylark 4), and Andreas Rieder (LS6). Congratulations to recent solos: Gary Morris, Staffan Ahlner and Dan Proudfoot. Please note, visiting powered aircraft or TMGs are NOT permitted to land unless in an emergency.

Paul Robinson

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

WE had some superb conditions during a visit by members of Booker and London clubs, enabling them to enjoy spectacular views. Phil King took advantage of the conditions to fly 500km entirely in Wales, possibly the longest Welsh distance ever flown. We are delighted to have been awarded a Lottery Small Grant by Sport England to help pay for improved

parachutes and training of two Bls. Our next idea is a club hangar to accommodate the club gliders and tug, as well as a new workshop. Plans are taking shape for hosting Competition Enterprise in July.

Diana King

HERON (RNAS YEOVILTON) WWW.HERONGLIDINGCLUB. MOONFRUIT.COM 51006N 002384W

THE club is steadily getting back on its feet after what could be described as a rough year at the very least. Add to that the recent flurry of interest from potential new pilots and things are definitely on the up. The two Puchacz are recently back from repair and refurb in Poland, and are as new. Congratulations to Mike Austin, who recently passed the Bronze written exam and completed his Bronze C. Also to Chris Woodward, who type converted to the Puchacz and soloed at Yeovilton.

Jim Hasker

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

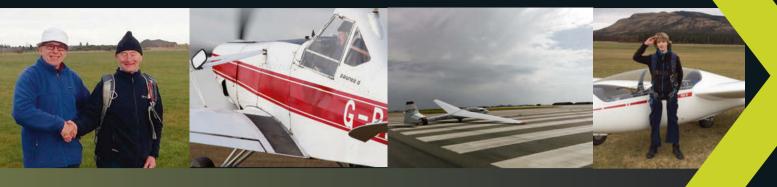
OUR K-21 was driven back safely through storm Katie (after repairs in Holland) and has returned to normal duties. Thank you to the Tait family for their help. Scott Napier resoloed in March, congratulations. In February, Robert and Ruari were presented to Prince Charles when he visited the Irvine parachute factory – that brought back some exciting memories. Our AGM was well attended and the following prizes awarded: Duration - Chris Gill; Height gain - Craig Allan; Distance - Bruce Gordon; Most meritorious flight - Bruce again; CFI's Shield - Chris Gill; Monkey - Angie Veitch for the Murray Mints incident!

John Thomson

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

LES Connolly was returned as our chairman at the AGM in March. Thanks were given to Charles Stewart and Phil Crabb for their work for the club as they stood down from the committee. Our five-year-plan was enforced by the membership and lays the foundation to ensure we promote gliding among the local community and beyond, maximise the use of our assets and provide a vibrant, friendly and efficient gliding club for members. Our hangar will be refurbished or renewed soon and did well resisting this winter's deluge. Our

(Left to right): Nigel Bing re-solos at Nene Valley after a long lay-off; **Peterborough & Spalding**'s Pawnee at Sutton Bank; Puch N53 awaiting a crew for a motor tow on **Culdrose** runway 18 (Sam Burton); **Scottish Gliding Centre** cadet Garry Simpson (14) after his first solo



courses are proving very popular especially our aerobatics course, which is full.

Mike Bowyer

KESTREL (RAF ODIHAM) WWW.KESTEL-GLIDING.ORG.UK 511403N 0005634W

A CHANGE of OIC has occurred with Flt Lt Simon Arnett taking charge in April. Simon, a Chinook pilot, started gliding as an Air Cadet and has experience of running flying clubs at a number of RAF locations. 618 VGS, who we have shared the airfield with, has been disbanded and while unwelcome for the ATC has yielded a number of new members and boosted our youth section, to the extent that Kestrel is pushing to achieve Junior Gliding Centre status. Flying achievements continue with a number of conversions to the K-18 and work progresses on ground exams.

Neil Armstrong

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

THE few good days we have had so far this season have seen members flying in wave and thermal and submitting claims for the club ladder. There have been two strong claims for the wooden spoon from one of our most experienced members.

John Martindale

LASHAM (LASHAM) WWW.LASHAMGLIDING.CO.UK 511112N 0010155W

SOME very good early season flights, including a 600km flown in March by Andy Aveling and Gary Coppin. Many 300km and several 500km have already been flown by members this season. The Lasham Trust has funded equipment for the new member maintenance facility that is proving popular and for a cabrio top for one of our K-13s so members can enjoy open cockpit soaring. Congratulations to Rene Lans, who won three trophies at our recent AGM for progressing from Silver to Diamond distance in just one season, and to Patrick Naegli for his epic 907km flight.

Mike Philpott

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

CONGRATULATIONS to Nathan Hampson-Jones, Joe Hooley, Grant Pottage, and Nick Crittenden (first solos), Radek Nespor (power solo), Ben Bujalski (re-solo), Emily Tillett (BI) and special congratulations John Jefferies (85th birthday). The cross-country season started with a dozen ladder flights in February. Two of the three days of the pilot development course were soarable with good progress made. By the time you read this, we will have completed the Soaring Course, and our Racing Week is planned for 18-26 June. We have introduced several initiatives to improve our grid-launch efficiency. Guests are very welcome at our regionals (30 July – 7 August). Andrew Sampson

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

AN expedition in March to Llanbedr saw all seven days flyable, with wave on all but one day. There are some spectacular photos on our blog, including views of Snowdonia and the Menai Straights. Back at The Mynd, crosscountry flying is off to a good start with Easter Monday afternoon spent bungeying. Our Dutch visitors are with us as I write, and have the knack of arriving with the good westerlies. We have had two more winter talks: Mike Fox dispelling various myths in the gliding world and a fascinating talk by Sir Christopher Coville on his life in the RAF.

Steven Gunn-Russell

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

CONGRATULATIONS go to Tony Walker (Diamond free distance at Soaring Safaris, SA), Jack Smith (solo) and Nigel Bing (re-solo). The club is extremely grateful to Yamaha UK for donating two golf buggies as their contribution to our young pilot scheme. These will be put to work as retrieve and general utility vehicles. We hope to have a second Grob Twin II Acro soon, which will be needed when the next influx of gliding scholarship students are selected. The annual dinner was a great success and well attended. Awards were presented to Roger Emms, Paul Newman, Rod Izatt and Tony Walker.

Phil Tiller

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

WE are enjoying our refurbished clubhouse, with no need to bring winter woollies to meetings. The AGM in February was so warm that windows had to be opened. Plans are well advanced for a new hangar, hopefully to be in use by summer. Our training fleet now includes a Puchacz and flying has continued throughout the winter thanks to Tarmac runways. By the time you read this, we should have had our work weekend, social evening and prize presentation and will be looking forward to a good soaring season with the 18m Class and Junior comps in August.

Adrian and Barbara Prime

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

WE held our AGM in March; presentations were made, with the President's trophy awarded to Rob Rowntree in recognition of his many efforts, including health and safety, winching and behind the scene jobs. We continue to fight to keep ourselves airborne; the replacement gearbox for our main winch failed after only a few weeks so another one will be fitted by our engineering-minded members. Sunday 3 April gave us one of our first wave days; over Easter the Friday gave us a possible record number of launches – just as well, as the Saturday and Sunday allowed no flying.

Brian Williams

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

BY the time this is read the memories from our start of season 'Super Heroes & Villains' party will have abated. Our members haven't held back with Guillaume Flavin folding himself into a K-8. Lukasz's Open Cirrus has had its first flight and there have been some syndicate changes. We have finally secured a new lease – the end of 10+ years of negotiation. Finally, our thoughts are with Martin Brown, our ex-treasurer, part way through his around the world Clipper sailing, over the loss of fellow adventurer Sarah Young. Achieving your dreams is never without risk.

Norman G Nome

PETERBOROUGH & SPALDING (CROWLAND) WWW.PSGC.CO.UK

524233N 0000834W

OUR soaring year came a little early this year with the longest recorded flight in March of 2hrs 23, this record belongs to Colin Church. A few of our intrepid members visited Sutton Bank and enjoyed the hospitality of Yorkshire



(Left to right): Ian Kennedy congratulates Steve Evans (left) at **Usk** after re-soloing (Claire Fisher); **Trent Valley** award winners (Geoff Lloyd); Oliver Dudley-Heidkamp celebrates his birthday during the **Upward Bound** exped (Christina Dudley-Heidkamp); **VOWH** junior Niall Watkins checks out the G102



Gliding Club and excellent flying with the ridge working on last day. At home, work had begun on improving the landing surface with heavy machinery levelling our runways. The club has recently installed a simulator next to the briefing room. Our first flying week starts 30 May with an open weekend scheduled for 11-12 June, weather permitting.

Tim Beasley

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

A MASSIVE well done to Ash Dodd, Hugh Hudson and Dan Nichols for going solo. Everyone had great fun and achieved lots at our Aboyne spring wave camp, even though the wave didn't really want to play. Myself and Dave Hurst soloed the ASW 19 and Simon Gutman worked on taming the Duo Discus. Sam Hepburn gained a few hours doing mutual flying, while Megan Weston had some memorable flights with the CFI. Jordan Richards from Seahawk joined us on the exped and spent hours soaring in the mountains. Great hospitality from Deeside members means we will certainly be back.

Zoe Mallam

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

AT last flying operations recommence. Our instructors have been busy getting current and checking out our members. Congratulations to Freddie Bull, Garry Simpson Jr (G2), both under 16, and Ramsay Leuchars - solo, James Dutton – Bronze and cross-country endorsement and also to Pete Sharphouse - Advanced Aerobatic Instructor Rating. He will be conducting aerobatic training on Wednesday evenings; 20 pilots have expressed interest. As an experiment we will have a full-time tug pilot (Lewis Gray) and also an additional full time Full Cat (George Ross) for the summer. Our visitor season has started with another successful Easter pilgrimage by English universities.

Chris Robinson

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

FIRSTLY, well done to Jordan Richards on being awarded the Phil Lever Trophy by the BGA as the Most Promising Junior Pilot 2015. The club is enjoying the beginning of soaring season with longer soaring flights. Our tug is undergoing its annual and we hope to have her back for the end of April. Steve Moore (BI) is progressing well in his FI training and we wish him all the best. Work is well under way to celebrate the club's 50th birthday, with an event planned for Saturday 25 June; anyone wishing to attend feel free to contact the club.

Jake Matthews

SHALBOURNE (RIVAR HILL) WWW.SHALBOURNEGLIDING.CO.UK 512014N 0013239W

AT last the "monsoon" is over and we have been taking to the skies with a passion. The annual open day will be held on 15 May and the flying week 30 May to 3 June. Congratulations to Jeremy and John for completing their cross-country endorsements. We welcome the reformed Southampton University Gliding club, which has chosen to call Shalbourne home, and said a sad farewell to "young" Bert, who gained his wings in March at 101, having started gliding at the tender age of 82. As always, many thanks to those whose hard work helps keep our lovely club running.

Claire Willson

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

SPRING has finally arrived and we've had our first Bronze flights. At our annual dinner, prizes were awarded to Kevin Hands, Lech Zakrzewski, Alistair Frier, Jane Jervis and Steve Tilling. Derek Woodforth has now taken over the CFI role from Phil Marks. The Regionals is still full and we're busy finalising the schedule. We've had a successful mini expedition from Dublin GC and have others planned. Do pop in if you're passing – there's usually someone around. If you want to visit us for a few days, give the office a call or send us an email. Visitors very welcome.

Tessa Whiting

SOUTHDOWN (PARHAM) WWW.SOUTHDOWNGLIDING.CO.UK 505532N 0002828W

SPRING arrived with a bang on 25 March, when everyone available for flying took to the air at Parham. There were several 5-hours, and morale went soaring too. TAG Farnborough is having to rethink the application for controlled airspace here, and we are hoping for a beneficial outcome. At the AGM, we thanked

outgoing chairman Tom Beck, and Steve Williams has now assumed office. Paul Marriott has been instructing in New Zealand, Guy Westgate has been encouraging parachutists to depart from the rear seat of his Fox glider and Jamie Dickson is starting his professional career as a pilot with easyJet.

Peter J Holloway

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

MEMBERS have been using the improved weather to restart real soaring and complete annual checks. Views from the air show the amount of standing water remaining in nearby fields, demonstrating how much we are benefiting from our recent drainage improvement work. Although our relatively small club flies mainly at weekends, on one sunny Thursday in March we logged 15 aerotows and 44 hours of soaring, and Steve Evans has re-soloed after 30 years. Plans are in hand to provide some midweek flying for Monmouth school in April and May and for a two-week Air League course at Usk later this year.

Stuart Edinborough

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

THE airfield is finally drying out after the long deluge and cross-country flights have commenced. CFI Ian Carrick has assembled the duty pilot roster for the year so everyone knows what they have to do. The Pawnee has been overhauled and is back in the air. Another hoist has been installed in the hangar and annuals are in progress. The AGM in March saw Neil Frost retiring after an excellent spell as chairman, enabling him to spend more time flying. Tony Moore takes the chair and the club looks in good health. Even the approach road is getting a much-needed upgrade.

Malcolm Taylor

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

WE have recently purchased two multipurpose vehicles to improve our ground fleet. Thank you to Barry K and Jeff G for their help in the workshop over the winter. We would like to welcome our new members from Needwood Forest and hope they feel at home in no time!

Dan Brown

(Left to right): CFI Paul Cronk and Liam Binley prove that **Welland** really is the friendly club; Patricia Ridger with Wednesday Crowd and Al McWhirter Shield at **Wolds** annual dinner; **Wrekin**'s Mike Gagg and Mike Osborne take the K-13; **York** solo for Ross Peterson, with Chris Sturdy



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

AGM 2016 was held in April, many thanks to those who have worked for a brighter future, particularly our long-serving treasurer, who leaves us financially healthy. We have our massive Youth Aviation Day on 12 June – please come along. There's a waiting list for the July Hus Bos Challenge Cup. This is a BGA-rated, handicapped competition of Distance Handicapped Tasks. Ron B and Hugh B are in charge and the Inter-Services are with us as a separate class. Task week commences 13 August. Call us first for cadet, ab-initio and pilot training in FLARM-fitted gliders. The season is now well under way.

Tony Lintott

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

OUR 50th Anniversary celebrations have started very well. On 27 February we had an excellent turnout of former members and a wide variety of aircraft flew in. At 13.53 one of our founder members, Peter Holland, was taken flying by his son Paul marking 50 years to the minute of the first flight at Trent Valley. The soaring season is well under way now with an early start in February and by the end of March there were a number of long flights on the BGA Ladder. Barry Pridgeon and Rick Ballard have joined the instructors' team.

Dave Bieniasz

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

OUR club expedition to Talgarth in April was a bit wet and windy, but we all managed at least one flight. It was nice to have some young pilots and their families come along with us this time, with Oliver, Tommy, Jake, Katie and Abigail all enjoying K-13 flights. Oliver also celebrated his birthday with his first K-21 flight along the ridge. The club bus is taking shape, with Henry and his gang installing seats, and Gary is organising some more technical bits.

Chris Scutt

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

THERE'S excitement once again at Sandhill Farm. The CAA has issued the paperwork for our new G102 in time for the season. This is

the first single-seat club glider we have had since selling our old K-18. It's great to see the club moving forward again. We are now also organising midweek aerotows and invite any local pilots to contact us. We recruited our first new member this season. Welcome to Chris McPherson, who previously flew at South Marston many years ago. We hope Chris will be the first of many to take advantage of our reduced membership fees this year.

Paul Kellett

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

WITH the 2016 season under way and members building their currency (albeit later than hoped), attention has turned to committee issues and the AGM. This year sees the sad standing down of chairman Mark Rushton and flight operations administrator Mike Taylor. Huge thanks for all the hard work, time and effort they and the rest of the team, treasurer Andy Burton, flight safety officer Malcolm Johnson and CFI Paul Cronk have put in over the past year. Attempting to fill their big shoes are Andy Bennet (chairman), Barry Wood and Becky Hart, who will be bringing the glamour of freshly ground coffee to the committee!

Rebekah Hart

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

THE early thermals just kept coming and Will Blackburn flew the first 100km of the season on 28 February, before the prize for last year's first 100km had even been presented to Steve Wilkinson at the Annual Dinner. As a further reward, Steve is directing our Two-Seater Competition this year and instructing our summer courses. The Al McWhirter shield went to the 'Wednesday Crowd' and their instructor Patricia Ridger for all the work they've done around the club. In addition to painting everything that didn't move, Tony Snowden completed his cross-country endorsement and Jonathan Thompson his Bronze exam.

George Morris

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

THIS year's Easter Expedition took us to Llanbedr in partnership with the Midland Gliding Club. A great location and facilities provided by Fly Llanbedr, saw fantastic flying in wave on most days to heights of 18,500ft. Plans to celebrate our 50th Anniversary, 3-5 June, are progressing well with many former members planning to attend. Four members have been selected to join the RAFGSA Expedition to Sisteron in April/May, providing a fantastic opportunity to fly in the French Alps and enjoy the challenge of some of the most demanding gliding anywhere in Europe. Finally, former Wrekin CFI Mick Davis has passed away suddenly; our thoughts are with his family.

Geoff Catling

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

DESPITE the wettest winter anyone can remember, the airfield is drying out nicely allowing many pilots to complete their annuals. Ab-initio training continues apace. Congratulations to Ross Peterson, who went solo on both aerotow and winch on the same day, a great achievement. We had a good turnout for the GASCO safety evening in February, which was both entertaining and informative. In March, the first in a series of lectures given by our cross-country coach Mike Bond was well attended. Following last year's successful courses we have published the dates for this year, which are now available on the club website.

Andy Carden

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

PERHAPS one advantage of being a hilltop site is that we only lost a couple of days' flying due to a waterlogged airfield. Our IT team launched our new and much improved website at the end of February – take a look. Mark Newburn's flying continues to go from strength to strength, with cross-country endorsement, Silver duration and conversion to the Discus. Graham Taylor and Tom Dale are now also Discus pilots. Steve Ogden passed his Bronze exam. Congratulations all. Take a look at our events diary and you'll see a busy year ahead. We welcome visitors at any time and wish everyone a good and safe season.

John and Sarah Marsh

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



> CLUB FOCUS

LASHAM

AT A GLANCE

Membership:

Full Flying: £474, entrance fee £72 Senior (midweek only): £328, entrance fee £72 Overseas: £132 Under-21: £20 Under-26: £132, entrance fee £25

Launch type:

Aerotow - £35.50 (2,000ft) Winch - £9

Club fleet:

8 x K-13s, 3 x K-21s, Duo Discus, DG-1000, 3 x Grob 102s, 3 x Discus, Rotax Falke, threescreen simulator

Instructors/Members: 110/700

Types of lift:

Thermal, ridge and occasional weak wave

Operates:

Seven days a week, 364 days a year

Contact

01256 384900 www.lashamgliding.com

Long and Lat:

511100N/010145W Airfield frequency 131.025MHz Powered aircraft strictly PPR. Beware of occasional large jet movements ET in the Hampshire countryside, Lasham is around an hour away from London. Since the arrival of the Army Club, the Surrey Club and the Imperial College Club in 1951, many eminent aviators have been Lasham members, including Peter Twiss, Anne Burns, Ann Welch, Frank Irving and Derek Piggott. Thanks to the foresight and careful planning by Wally Kahn, Pat Garnett, Mike Gee and other senior members, Lasham has owned its 550-acre former WW2 airfield since 1999.

There is no doubting that it is a big club, arguably the biggest in the world, but better described as a collection of smaller groups within a large club. In addition, many other gliding clubs operate within Lasham, including the Crown Services, Imperial College and Vintage Clubs.

We have full-time staff who manage our core activities, plus seasonal staff as required. Much of the club activity is carried out by members who volunteer, with the professional staff filling in where volunteer effort is not appropriate.

Lasham's capital investment programme is assisted by income from the commercial tenants at our airfield

With 110 top class instructors, we offer training at all levels from ab-initio to top level cross-country and in aerobatics. Two Skylaunch winches give launch heights sometimes over 2,000ft and our fleet of tugs give efficient launching for the largest of grids. We have a booking system so members do not need to wait around all day expecting to fly and our ratio of course members to instructors is 2:1. We can offer navex as well as NPPL training in our Rotax Falke.

A look at the BGA Ladder demonstrates Lasham's success in cross-country flying. We have several current or former world champions amongst our members and we operate the 'Compass' scheme, where pundits coach less experienced pilots in two-seaters. Lasham also has an active aerobatic flying community and is home to the Gliding Heritage Centre, which is a living museum of vintage gliders.

Lasham looks to the future by investing heavily in low-cost flying to help youngsters develop their skills. Some have gone on to achieve excellence in the World Junior Championships, while others have joined the ranks of instructors.

John McCullagh and Mike Philpott



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Instructor Jason Arnold introduces Willy Hackett to the Schweizer's control panel (Debb Hackett)

Willy Hackett starts his quest to fly as many Schweizer types as possible in the USA. Debb Hackett reports from Tennessee



Stunning views of the Chilhowee ridge from the porch of the clubhouse (Debb Hackett)

ONVENIENTLY nestled between the rolling mountains of Tennessee sits Chilhowee Gliderport, right at the foot of a 17-mile section of Appalachian Mountain ridge. The only thing better than the flying is the atmosphere.

We visited the club for Willy to fly the Schweizer 2-32. He's a man on a mission. It began when we first lived in the US in 2006 and began flying at the Texas Soaring Association. "With the opportunity to live in the US there's a chance to see their main glider manufacturer and fly their aircraft," said Willy. That said, Texas is a long way from anywhere so, at that stage, this was just an idea.

However, we left Texas in 2008, returning to the UK. But then we moved to Washington DC in 2013 and this idea really took hold. Willy explained: "I don't think I've ever seen a Schweizer in the UK so I'd like to fly as many types as I can, while I can."

I needed no convincing – it's fun to travel and I've always wanted to visit Tennessee.

The Schweizer Challenge is an intriguing one. We think we can crack 5-10 types. It'll take some driving, mind you. Chilhowee was

about 10 hours. Thankfully the children are good in the back of the car!

So it was, in early March 2016, that we arrived at the club, sitting so beautifully alongside the Chilhowee ridge. The gliderport (as they're typically called here) is owned and operated by Sarah Arnold, who's also a fully qualified mechanic, tow pilot and instructor. Oh and she flies on the US gliding team too. But more importantly, she's fostered an atmosphere that encourages others to love the process of gliding almost as much as the act itself. Sarah began powered flying at 13, and later was hired to manage Chilhowee. Then, at just 24 years old, she became its owner.

Sarah is perfect in the role – technically very competent, able to maintain her own fleet and, even better – brilliant with visitors. My children are charmed in less than five minutes and begging to ride on the golf cart with her

Willy, who isn't an easy sell, was also impressed. "The operation is very slick and well run. For example, all the property from the ground equipment to the tow planes is well maintained. There's a nice clean

clubhouse, lovely new bunkhouse and the field itself is well cared for," he said.

As lovely as the setting is, I can tell my test pilot husband is itching to get into the sky. While I'd be interested in flying around to check out the scenery, he's more curious about how different aircraft feel and figuring out why they are designed a certain way.

Schweizer's design ethos is somewhat unusual. Willy explained: "They're all made of metal and tend to be over-engineered and heavier than European gliders. They don't usually handle as nicely or perform as well. But they are very hard wearing and stand up well to the harsh environment of the North American climate."

We arrived, after being in the car for a day and a half, very ready to be out in the fresh air. After the necessary paperwork, we wandered down to the hangar, admiring the stunning view of the mountains, and rolled up our sleeves to help. Hangar stacking and unstacking is a fine art at Chilhowee, with every inch of space used up by the fleet. Jason, Sarah's husband (another instructor), claims he can do both with his eyes shut – we don't doubt it!

After three gliders were out on the line and the tow plane ready to go, Willy and Jason DI'ed the fleet and prepared to fly. Even though it's not a 21st century hotship, Willy reminded me of a cat on hot bricks as he was clearly keen to take off.

The weather was perfect – blue skies and sunshine with a gentle breeze. The clouds are just starting to bubble across the highway towards the ridgeline, almost beckoning the pilots to play. The rest of us Hacketts sat on the porch swing, fussed the airfield cats and



Willy and Jason discuss the technicalities before strapping in (Debb Hackett)

were lulled by the calming nature of the scenery.

Flying in the US is different from the UK, but conditions here make it a tempting prospect for pilots able to make the trip.

From 2006-2008, we flew in Texas under Scottish CFI Dean Carswell. During that time we road-tripped to New Mexico for the even bigger sky and Diamond goal conditions. Chilhowee is such a great site that Dave Watsham, a member at Yorkshire Gliding Club (Sutton Bank), keeps his Ventus 2AX there permanently. He explained to me why: "It is a ridge site like Sutton Bank. The main ridge at Sutton Bank is approximately seven miles long (from Roulston Scar to Paradise Farm). The ridge at Chilhowee is 17 miles long. Chilhowee is where I completed the glider add-on to my US commercial



And airborne with Sarah flying the tow plane – I promise they missed the farmer! (Debb Hackett)

WILLY'S ASSESSMENT OF THE 2-32

Designed by Ernest Schweizer Seats: three Number made: 87 A WELL coordinated glider with heavy control forces. It has an early generation lamina flow wing, which gives it a high minimum sink and thermalling airspeed, as well as a fast approach speed.

She doesn't like to be flown slowly, but she does have a great lifting capacity and you can fit three people in it (yes, you read that correctly) – and that's quite novel.

According to www. sailplanedirectory.com:
"The 2-32 was once the world's highest-performance production multi-seater and has been prolific record-setter. In the late 1960s and through the 1970s the design held many world and national records for speed over 100km, 300km and 500km courses, as well as a variety of distance, out-and-return and altitude records for both men and women.

"It gained the feminine multi-place world and national records for absolute altitude and altitude gain in 1975. It is widely used for the commercial 'rider' business with the facility of carrying two relative light and friendly passengers on the bench rear seat. The design features airbrakes and an all-moving horizontal tail with anti-balance tab."





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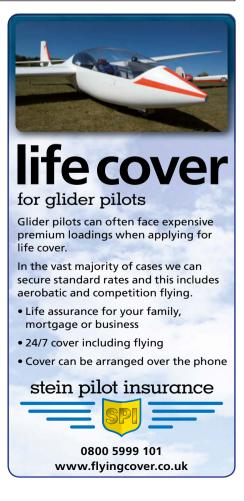
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power licence. I have a home in Georgia, which is a two-hour drive from Chilhowee. I spend the spring and the fall in the US, and the summer and winter in the UK. When in the US, I spend most weekends at

Chilhowee."

But back to today's flight. Willy and Jason get airborne, thanks to Sarah in the towplane, and as us girls watch anxiously from the ground, they get to the ridge, release and thankfully do not sink. Phew. More than just a circuit then.

I didn't get to fly, but Willy explained the conditions were great: "I can thank the very good ridge close at hand producing lift in a predominantly westerly airflow, combined with good thermals both off the ridge and from the flatlands nearby. Large birds of prey regularly accompany you as you soar the face of the ridges. Relatively long distance flights can be made up and down the Sequatchie ridge west of the field."

In summary, the whole family enjoyed the trip to Chilhowee Gliderport in Benton, Tennessee, even though only one of us flew. The standard of instruction was high, with the southern hospitality showing in the small things like a porch swing and a comfortable clubhouse. And taking the time

to engage with the children, not just the main pilot. The simple, but game-changing things. However, our main goal was to fly and Willy was very happy too. "I really enjoyed flying at Chilhowee," he said. "It's a lovely airfield set in the rolling hills of Tennessee with the potential for long-distance flights. Soaring conditions are good and predictable and, by European standards, the fields

to land in should you need them are big and plentiful."

We had so much fun we're hoping to go back for Octoberfest. Additionally, Sarah hosts vintage regattas, GTA races and both wave and ridge camps, along with offering tows, rides and lessons.

■ Next in Willy's Schweizer Challenge will be our home club, Mid Atlantic Soaring, in Pennsylvania. It is home to two Schweizers and a very nice ridge system. ■ www.chilhowee.com



Willy Hackett is an RAF fast jet test pilot, who began gliding at 11. He is a Full Cat instructor and member at Bannerdown GC when in the UK. He and his family currently live outside Washington DC, where he works on the Joint Strike Fighter Program. Debb is a journalist, BGA Diploma recipient and long-time member of the S&G team

1 OCTC

1 OCTOBER 2014 TO 30 SEPTEMBER 2015

	MEN	MEMBERSHIP					FLYING			NEW PILOTS	ILOTS	
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Bristol & Gloucestershire	144	23	16	276	17	31	3715	4721	4056	11	4	
Buckminster	102	0	0	350	110	4	2715	3498	1466	4	ო	4
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Cairngorm	42	9	4	99	0	2	44	734	686	0	0	0
Cambridge	185	16	6	517	540	104	5404	7208	4910	10	2	
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Peterborough & Spalding	57	က	4	177	25	2	0	1149	946	0	0	0
Portsmouth Naval	79	9	m	125	0	12	1531	4049	1237	∞	က	က
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South Wales	81	12	∞	107	0	0	1139	1649	098	2	2	m
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Ulster	43	2	2	327	30	2	0	855	390	0	0	0
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Yorkshire	180	35	16	775	215	43	839	4395	3276	0	2	_
Totals	16891	890	475	17766	1464	1263	162936	232732	109593	240	131	113
Total Flying Membership	6891				Not	e – Air Cad	et new pilot	s not include	Note – Air Cadet new pilots not included during 201	15		
Total Club Membership	9618											
Total Participants	26213											

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

BGA accident/incident summaries

AIRCRAFT

Ref Type Damage Date, time Place Age Injury P1 hours

148 K-13 substantial 08/08/15, 15:00 Lasham GS 55/40 none/none 407

Introductory flight ended in a field landing. The pilot allowed the glider to get too low, too far from the airfield and attempted to stretch the glide back. Observers at the launchpoint saw the glider approach the airfield at slow speed in a nose high attitude. When the pilot realised he would not clear trees bordering the airfield he made a very low <100ft agl turn away and managed to level the wings before landing in the crop field beneath him. Tailplane mounting fixtures were damaged.

149 Kestrel destroyed 09/08/15, 16:00 Shenington GC 68 none 26 Undershooting approach ended in a crash short of the airfield. The glider was observed undershooting the approach, low and slow with the airbrakes still out before it was seen to stall, drop a wing and fall out of sight. The low airtime pilot had had received a tailored programme of instruction before being allowed to fly the glider, but the CFI's report notes that the pilot was not doing enough flying to remain current.

154 Duo Discus substantial 06/09/15, 14:00 Chilterns GC - none not reported Blade failure of the turbo during a cross-country flight.

155 K-18 substantial 29/08/15, 10:45 Wrekin GC 68 none 30 Glider hit airfield lighting fixture during landing run. The glider was seen to sink rapidly in the latter part of the approach, the pilot closed the airbrakes, but the glider touched down on the perimeter track and the light fixture tore off the starboard tailplane and elevator. Wind gradient in the lee of an adjacent hangar and/or poor speed control cited as possible factors in the report.

156 DG-1000 minor 09/09/15, 18:00 Deeside GC 86/67 none/none 3900 Undercarriage retracted on touchdown. The visiting pilot reports that all was normal on the approach, the undercarriage lever was in the down position and there was no gear up warning when the airbrake was used.

157 DG-303 minor 10/09/15, 13:00 Deeside GC 61 none 850 Undercarriage retracted after landing. The visiting pilot had lowered the wheel as part of the pre-landing checks and an observer reports that the wheel retracted just after touchdown. The pilot suspects that turbulence during the circuit combined with no positive resistance in the over centre lock caused the mechanism to become unlocked.

158 LS7 minor 10/09/15, 14:15 Llanbedr airfield 57 none 1284 Wheel-up landing. The visiting pilot is sure that he lowered the wheel during the downwind leg, but suspects that he may have forgotten to raise the wheel after the aerotow and retracted the wheel instead.

159 LS3 substantial 22/08/15, 17:30 Cotswold GC 56 none 955 Competition field landing ended in deliberate groundloop. On final glide into a strong headwind, the pilot's flight software initially indicated a safe arrival height at the airfield. This safety margin began to reduce as the pilot flew into the lee of higher ground, but the pilot thought that he could still make a straight in approach to some stubble fields. These fields turned out to still have crop and, getting lower and unable to gain height, the pilot was forced to set up a circuit into the only apparently suitable field that he could see. The into wind approach would have been over trees so the pilot flew a crosswind approach and landing. Realising that he wouldn't be able to stop before hitting a stone wall, the pilot groundlooped the glider which then slid sideways towards the wall, one wing sliding up and over the wall. The glider suffered damage to the tailboom and rudder, as well as to the underside of the fuselage and wings.

162 Skylark 3 substantial 19/08/15, 13:30 Midland GC 58 minor 287 Heavy landing after loss of elevator control. The visiting pilot conducted positive control checks on the club glider before launching. Initially the winch launch seemed normal, but when the pilot tried to help the glider to the full climb attitude there was no response or resistance to the stick movement. The pilot released at 300ft agl at 70 knots and turned as part of the launch failure recovery. The airspeed settled at 60 knots and the pilot performed a no-airbrake approach, landing heavily in a nose-down attitude. There was no elevator response to the pilot's attempts to round out. Although the initial part of the launch seemed normal to the pilot, a witness reports seeing the tail strike the ground hard twice at the start of the ground run, damaging the tailskid and rudder. Investigation revealed damage to the sternpost, to which the elevator control pulley was mounted.

163 K-13 destroyed 20/09/15, 11:15 Bowland Forest GC 54/59 minor/minor 1604 Low-level spin after simulated winch launch failure. The student was receiving instruction on coping with launch failures in light winds. On the first flight, the P1 took control and turned the P2's attempt into an instructor demonstration. Having rebriefed, another simulated launch failure was flown, but on this attempt the instructor allowed the P2 to continue as handling pilot for longer. The P1 took control at 100ft agl, but while turning to line up with the runway the glider entered a spin, with the falling wingtip hitting the ground first. Both pilots suffered back injuries, including fractured vertebrae.

164 Twin Grob substantial 24/09/15, 17:45 Midland GC 54/48 none 4658 Landing in heather caused groundloop and broken fuselage. After turning final, neither pilot could see clearly into the low sun so the P1 took control and repositioned the glider for an approach not directly into sun before handing control back to the P2. The P1 then realised that their approach might conflict with grazing sheep so he took control again intending to fly over the edge of the ridge. Instead, the glider touched down just short of the edge, catching some heather which groundlooped the glider and broke off the tailplane.

165 ASW 20 minor 24/09/15, 17:20 Eden Soaring 26 none 320 Glider hit fence after landing long. The pilot flew the circuit and approach in heavy rain, at a higher airspeed than normal. Having to land long to avoid a landed glider, and unable to use full landing flap because of the flap limit speed, the glider floated further than the pilot expected. After touching down the pilot put a wing down to groundloop the glider, which then slid sideways into the fence. A wing was damaged as it slid over a fence post, there were also barbed wire scratches to a flap and the fuselage.

166 Puchacz minor 26/09/15, 15:20 Derby & Lancs GC 73/52 none/none 2156 Fractured undercarriage mounting tube. The glider bounced on landing before landing again from about 3ft agl, breaking the tube. Inspection revealed corrosion in a pre-existing crack at the fracture site.

BGA accident/incident summaries continued

Type Puchacz **Date, time** 30/09/15, -**Age** 50/-Ref **Damage Place** Injury P1 hours substantial Deeside GC none/none 480 Heavy landing. On his tenth training flight, the visiting P2 was allowed to attempt to fly the aerotow from the start of the groundrun, expected to plan and fly the circuit and then flew the approach and landing, including use of the airbrakes. The P2 started the roundout a little late and towards the end of the roundout he pushed the stick forward. The P1 took control, but was too late to prevent a hard, tailwheel first landing. The tailwheel tyre burst, the axle was bent and a rudder hinge broken. 13/09/15, 11:55 substantial Cairngorm GC Self-launch glider crashed on take-off. Soon after taking off into the fresh wind, the glider was hit by a gust and the pilot was unable to prevent a wingtip hitting the ground. The glider groundlooped before crashing to the ground, still yawing. One wingtip was damaged, as well as the tailwheel fork and fuselage around the tailwheel. substantial 30/09/15, 13:15 Thruxton airfield 59/63 none/none Prop strike and possible engine damage. At the start of the take-off run, the P1's canopy came open and despite throttling back the TMG tipped forward allowing the propeller to strike the runway. 2016 07/10/15, 12:15 Denbigh Gliding minor 57/60 none/none Wheel-up landing on runway damaged the bottom of the fuselage. Unable to contact ridge lift after a winch launch, the pilot returned towards the airfield intending to start the engine. The engine started, but was not developing power so the pilot landed on the runway with the engine out, but forgot to lower the wheel. His report suggests lowering the wheel before deploying the engine, as well as using an undercarriage warning system. **Incidents** 27/08/15, 13:30 Aileron control disconnection. The pilot and a helper had performed full positive control checks as part of the DI without noticing any problems. Later, as part of his pre-flight checks, the pilot could not see an aileron moving in conjunction with his control column movement. After getting out, the pilot discovered that the L'Hotellier connection was undone. 28/08/15. 16:00 **ASW 20** none Wheel-up landing. After releasing from an aerotow retrieve, the pilot left the wheel down. He then retracted the wheel when cycling the undercarriage as part of his pre-landing checks. 152 K-21 none 05/09/15, 14:30 - - - - - - After a failed winch launch at about 300ft agl the pilot turned and tried to land downwind. Realising that there was not enough space to land within the airfield, the pilot overflew the boundary hedge and landed in an adjacent field. 05/10/15, 15:15 Front canopy came open during flight. After briefing the front seat passenger, the P1 was able to induce the canopy to start closing by using a gentle sideslip; the P2 was then able to reach and close the canopy. The club was hosting an open weekend, giving flights to gliding novices; club members were helping guests into gliders and briefing them while the P1 was in the rear seat. The report is unsure whether the canopy was insecurely latched before flight or whether it was inadvertantly opened in flight. 13/09/15. 16:00 none After a tug flew a go-around from short final, a member of the public walking on the public footpath around the airfield perimeter reported that the tow rope came within inches of his head. 17/09/15, 10:30 minor Tug hit parked car. After starting, the engine ran away at full power, the wheel brakes could not stop the tug moving and despite the pilot steering the tug the elevator struck a parked car. A similar engine runaway had occurred on start-up the previous day, at which point the tug was returned to the hangar for maintenance. After being returned to service another runaway occurred in the air, just after a glider had released, forcing the pilot to cut the engine and glide back to the airfield. The problem was thought to have been traced and rectified when, the following day, the incident pilot inspected the aircraft. The tug wheel brakes were known to be ineffective and had been serviced the day before. 170 K-13 none 13/08/15, 14:30 - - - - - - - Winch launch wing drop. The wingtip fell to the ground after the wingtip holder released the other wing. The pilot did not release, the launch controller did not stop the launch, so the glider accelerated with one wingtip dragging on the ground. Soon after taking off, the glider was off to one side of the runway and pointing away from the runway so the winch driver cut the power. The pilot was able to release and land safely in an adjacent crop field. The pilot was aware of another glider downwind to land and felt rushed into taking off rather than waiting for the other glider to land and be retrieved from the runway. 08/10/15, 15:50 none/minor LS1 minor Retrieve vehicle drove off before the K-21 had been released. The wingtip holder had put down the wing and walked to the nose to assist the other pilot, leading the driver to believe that the glider had released. Both pilots were knocked down by the glider, one having his hand injured by the canopy, which was also damaged. The K-21 was pulled into the tail of the LS1, damaging the rudder and elevator.

In an S&G survey, 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.

BGA BADGES

Pilot Club (place of flight) No. Date

FAI 750k Diploma

John Paterson SGU 24/12/2015

(New Tempe)

Diamond distance

27/01/2016 1-1241 Bruce Walker Nene Valley

(New Tempe)

Diamond goal

26/01/2016 2-2542 David Griffiths Lasham

(Tempe-Bloemfontein)

Gold Badge

04/01/2016 Oliver Barter Lasham Tom Arscott Lasham 11/12/2015

Gold Distance

26/01/2016 David Griffiths Lasham

(Tempe-Bloemfontein)

Gold Height

04/01/2016 Lasham Oliver Barter

New Tempe)

10/09/2015 Clement Allen London (Llanbedr Airfield, Wales) Tom Arscott . Lasham 11/12/2015

(Narromine)

Silver Badge

David Griffiths Lasham 26/01/2016 09/07/2016 Robert Munro Booker Colin Stringer Cotswold 04/12/2015

Silver Distance

16/01/2016 David Griffiths Lasham (Tempe-Bloemfontein) Colin Stringer Cotswold 04/12/2015

(Lake Keepit)

Silver Duration

David Griffiths Lasham 26/01/2016 (Tempe-Bloemfontein) Robert Munro Booker 09/07/2016 Cotswold 04/12/2015 Colin Stringer

(Lake Keepit)

Silver Height

David Griffiths 16/01/2016 Lasham (Tempe-Bloemfontein)

04/12/2015 Colin Stringer Cotswold (Lake Keepit)

21/10/2015 David John Lasham

(Aboyne) Joern Schuster Bath, Wilts 31/07/2015

& North Dorset

Cross Country Endorsement

06/02/2016 Colin Stringer Cotswold Mark Wilshaw Essex & Suffolk 01/11/2015 21/02/2016 Suzanna Lyell Lasham Lavton Edwards Wolds 14/02/2016 28/02/2016 Keith Lorenz Stratford

Bowland Forest 27/02/2016 Jonathan Hough 16/03/2016

On Avon

Joseph Andrewartha Bath, Wilts

& North Dorset Nigel Walklett Gliding Centre 15/03/2016 Paul Field 11/03/2016 Chiltern Joshua Wood 25/03/2016 Cranwell

Devon Burnley Cranwell 20/09/2015 Michael Watts Gliding Centre 25/03/2016 25/03/2016 Toby Evans Cranwell George Platt Bowland Forest 25/03/2016 Shalbourne 09/04/2016 John Douglass

Tomasz Cebo Cambridge 05/04/2016 Mark Newburn Yorkshire` 25/03/2016

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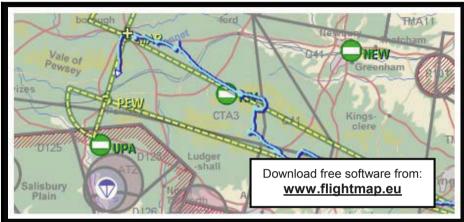
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