

# SAILPLANE & GLIDING

VOL. 68 NO.3



**HPH TWINSHARK  
AT AERO 2017**

**THREE LAPS OF A  
500KM? IT WOULD  
BE RUDE NOT TO!**

**TAKING CONTROL  
OF STEMME'S S12**

## **OPEN OUT IN THE SURGE**

**How to use opposite logic to centre thermals**

£4.50



# The BGA Shop



[www.bgashop.co.uk](http://www.bgashop.co.uk)

## YAESU

### FTA-550L

**'The Perfect 8.33 Handheld'**

- Li-Ion battery
- 5 Watts TX Output Power
- Huge 1.7" x 1.7" Full Dot Matrix display (160 x 160 Dots)
- VOR Navigation Display
- NOAA Weather Channel receive
- NOAA Weather Alert
- 200 Memory Channels with 15 characters
- Back-lit Keypad and display with dimmer
- Water Protection -IPX5 Rating
- Loud Audio (800 mW)



INCLUDES:- Li-Ion battery, AC and 12VDC charger with cradle, Alkaline battery tray, Antenna, Belt clip, headset adapter, and USB programming cable.

**£299.95**

**Plus full range of accessories**

**In Flight Plumbing  
(Your Comfort is Guaranteed!)**



**The BGA Shop - our goal**

Our commitment is to supply a diverse range of items to meet the needs of clubs and pilots along with an excellent level of service. Watch our website for the newest gliding essentials!

Visit us on-line at [www.bgashop.co.uk](http://www.bgashop.co.uk)

Come see us at **Bicester airfield** or

Call us on **044 (0)1869 571814**

## FTA-750L

**'With GPS'**

## FTA-450L

**'Comms only'**

**available soon**





## CONTENTS

- 04 BGA NEWS
- 07 YOUR LETTERS
- 24 WHAT IS FUTURE OF OPEN CLASS?
- 26 GLIDING GALLERY
- 28 LIVING WITH OUR EUROFOX
- 30 A FLIGHT THAT KEPT ON GIVING
- 34 JUNIOR GLIDING: WINTER SERIES
- 42 AN INSPIRATION IN THE MAKING
- 45 PHENOMENON OF HYDRAULIC JUMP
- 64 A CUNNING PLAN
- 65 BOOK REVIEW

## CLUB

- 50 DEVELOPMENT NEWS
- 52 CLUB GALLERY
- 54 CLUB NEWS
- 60 CLUB FOCUS: EAST SUSSEX
- 62 BENEFITTING AS AN INSTRUCTOR
- 66 BGA CLUB STATISTICS
- 68 ACCIDENT/INCIDENT SUMMARIES
- 70 EASA UPDATE
- 71 VINTAGE GLIDING
- 71 BGA BADGES
- 72 CLASSIFIEDS
- 74 INDEX TO ADVERTISERS

## FEATURES

### 08 AERO 2017

S&G reports on the highlights of Europe's biggest aviation fair, held in Friedrichshafen each April, this year being a 'gliding year'

### 16 WHY OPEN OUT IN THE SURGE?

**Tony Cronshaw** talks to leading coaches about how to use a logic opposite to that of the dig-into-the-surge method

### 20 CREATING A STIR OVER SCOTLAND

One day in April saw some amazing flights, which included **Santiago Cervantes** going round a 500km twice, while **John Williams** went round three times

### 38 TWIN VOYAGER S12

**Guy Westgate** was delighted to take up an offer to fly Stemme's two-seater S12



MEMBER OF THE ROYAL AERO CLUB AND THE  
FEDERATION AERONAUTIQUE INTERNATIONALE



 **THE MAGAZINE OF  
THE BRITISH GLIDING  
ASSOCIATION**  
JUNE/JULY 17 VOLUME 68 No 3

**EDITOR:** SUSAN NEWBY  
C/O BRITISH GLIDING ASSOCIATION,  
8 MERUS COURT, MERIDIAN  
BUSINESS PARK, LEICESTER LE19 1RJ

**EMAIL EDITOR@**  
SAILPLANEANDGLIDING.CO.UK

**TEL:** 01763 246657



## COVER STORY

Guy Westgate and Stemme agent Chris Dawes in the new Stemme S12 Voyager, in formation with Guy's Aerospax Grob109b camera ship over Lasham (Guy Westgate)

## DEADLINES

*Aug/Sept 17*  
Articles, Letters, Club News: 5 June  
Display advertisements: 21 June  
Classifieds: 7 July

*Oct/Nov 17*  
Articles, Letters, Club News: 7 Aug  
Display advertisements: 21 Aug  
Classifieds: 7 Sept

© British Gliding Association 2017  
All rights reserved. Views expressed herein are not necessarily those of the Association nor the Editor

## PUBLISHER

British Gliding Association,  
8 Merus Court, Meridian Business  
Park, Leicester LE19 1RJ  
**tel: 0116 289 2956** fax: 0116 289 5025  
[www.gliding.co.uk](http://www.gliding.co.uk)

**email:** [office@gliding.co.uk](mailto:office@gliding.co.uk)  
**To advertise in S&G:** Debbie Carr  
[debbie@gliding.co.uk](mailto:debbie@gliding.co.uk)

**To subscribe to S&G:**  
[office@gliding.co.uk](mailto:office@gliding.co.uk)  
Or subscribe at [www.sailplaneandgliding.co.uk/subscribe](http://www.sailplaneandgliding.co.uk/subscribe)  
**UK £25.75 Overseas airmail £41.50**

› WomenGlide is organising a two-day mini-comp at Sutton Bank (10-11 June) to encourage more female pilots to fly cross-country. Two-seaters will be available for cross-country training for those who need it. Entry is free, but you do need to book in advance. Men are also encouraged to join in, but prizes will be for ladies only. More information at: [www.ygc.co.uk/women-glide-2017](http://www.ygc.co.uk/women-glide-2017)

› April 2017 is looking like the best ever for BGA Ladder open and height claims. A number of flights are included that won't happen in the future if Exeter gets its way with the controlled airspace proposal. Turn to pp20-23 to read about flights from Portmoak that created a stir on 5 April.

› The CAA received more than 2,000 applications for funding to help cover costs of equipping aircraft with 8.33kHz radios during the first application round. Payments will be made to successful applicants during the summer. A second application round closes on 30 September 2017. The same eligibility criteria will be used as previously and claims will be formally assessed after the closing date. Total funding is limited to €4.3 million, awarded on a first come, first served basis. Full details are at [www.caa.co.uk/General-aviation/Aircraft-ownership-and-maintenance/8-33-kHz-funding-application/](http://www.caa.co.uk/General-aviation/Aircraft-ownership-and-maintenance/8-33-kHz-funding-application/)

› The latest European Gliding Union newsletter provides a useful overview of the regulatory progress being made in Europe, particularly in respect of the hoped-for lighter regulation for gliding, Part-Gliding. See: [www.egu-info.org/dwn/EGU%20newsletter%201-2017.pdf](http://www.egu-info.org/dwn/EGU%20newsletter%201-2017.pdf)

› The CAA has published ORS1217 allowing non-transponder equipped gliders and SLMGs to fly above FL100 and up to FL195 in the notified Non-SSR Gliding Areas (NSGA). The new exemption runs until 31 March 2018.

› The 2017 Waypoint List (Start Points, Turn Points, Control Points and Finish Points) can be downloaded via <https://members.gliding.co.uk/library/airspace-files/bga-waypoint-list>

› The CAA has launched its own consultation over proposals to modify the way in which future airspace change proposals should be carried out. The BGA will be responding and you can view the proposals and consultation documents at <https://consultations.caa.co.uk/policy-development/draft-airspace-design-guidance>

› Congratulations to Belgian pilot Patrick Pauwels, a former board member of Europe Air Sports and a founder of the European Gliding Union, who has been awarded the Lilienthal Gliding Medal by the International Gliding Commission of the FAI.



■ Walking On Air, a gliding charity for the disabled, was visited by Sebastian Pooley (pictured above right), who presented a cheque for £1,419 as part of Pooley's support to aviation charities. Sebastian, who had a winch launch and an aerotow whilst visiting Portmoak, said afterwards that his lookout will be much improved in future.

## HELP TO PROGRESS

AN IMPRESSIVE number of glider pilots have been awarded bursaries by the Royal Aero Club Trust in 2017.

Alistair Cunningham, 18, is awarded the Peter Cruddas Foundation Scholarship, while the Bramson Bursary goes to Niall Watkins, 18. Other glider pilots (aged 14-17) receiving bursaries are: Harry Geeson, Alexander Phillips, Nathan Hampson-

Jones, Alex Walby, Oliver Summerell, Oliver Campbell, Francesca Gregory, Harvey Algar, Henry Jones, Daniel Nichols, Harry Thomas, Lewis Merry-Taylor, Adam Furze, Madeleine Draper, Oliver Soanes and Benjamin Ambler.

The bursaries are awarded to enable pilots to progress in their chosen air sport. [www.royalaeroclubtrust.org](http://www.royalaeroclubtrust.org)

## DATES

NATIONALS, REGIONALS AND OTHERS

Women's Worlds	Zbraslavice, Czech	17/5-4/6/17
Club Class Nationals	Hus Bos	17-25/6/17
18m Class Nationals	Hus Bos	17-25/6/17
2nd World 13.5m Class	Szatymas, Hungary	29/6-16/7/17
Competition Enterprise	North Hill	1-8/7/17
Europeans	Moravska Trebova, Czech	20/7-6/8/17
(Club, Standard and 20m multi-seat)	Czech	
15m Class Nationals	Aston Down	22-30/7/17
Open Class Nationals	Aston Down	22-30/7/17
20m multi-seat Class Nationals	Aston Down	22-30/7/17
Standard Class Nationals	Aston Down	22-30/7/17
Junior Worlds	Pociunai, Lithuania	27/7-13/8/17
Europeans	Lasham	10-26/8/17
15m, 18m and Open Class		
Junior Championships	Nympsfield	19-27/8/17
Two-Seater Competition	Pocklington	20-27/8/17
UK Mountain Soaring Champs	Aboyne	3-9/9/17

### Glider aerobatic competitions

Saltby Open	Saltby	2-4/6/17
World Games (gliding)	Wroclaw, Poland	20-30/7/17
Aerobatic nationals	Saltby	24-27/8/17
World Glider Aerobatic Champs	Torun, Poland	27/7-5/8/17

**SHENINGTON REGIONALS**  
1-9/7/17

**BOOKER REGIONALS**  
16-23/7/17

**HUS BOS CHALLENGE CUP**  
22-30/7/17

**COTSWOLD REGIONALS**  
22-30/7/17

**INTER-SERVICES**  
29/7-6/8/17

**BIDFORD REGIONALS**  
5-13/8/17

**DUNSTABLE REGIONALS**  
5-13/8/17

**BIDFORD REGIONALS**  
5-13/8/17

**BICESTER REGIONALS**  
5-13/8/17

**NORTHERN REGIONALS**  
13-19/8/17

■ **BGA Club Management Conference, 11 November, 2017 at Highgate House, Northampton**

## New home of aerobatics

GLIDING features prominently in the logo of the rebranded British Aerobatic Association (BAeA). The association has launched a new identity, British Aerobatics, reflecting its heritage as the sporting body for both power and glider aerobatics.

It aims to be the home for all British aerobatic pilots and fans. There is a new-look website and a YouTube channel.

[www.aerobatics.org.uk](http://www.aerobatics.org.uk)

■ CONGRATULATIONS to Maz Makari, who won the Gold medal at the 2017 Dan Smith aerobatic gliding competition. He scored 85.66 per cent in this event, held at Dunstable on 21-23 April. Paul Conran took Silver, just one per cent behind Maz.

The Dan Smith Memorial Trophy, awarded to the top-scoring Sports-level pilot, went to 15-year-old Joel Hallewell, with a score of over 80 per cent.

■ AEROBATICS is a great way to develop flying skills and the confidence to handle any upset and unusual



attitudes a pilot may encounter during a flying career. Another 'Get into Aeros' event for Juniors is taking place at Lasham, on 16-17 September. Last year's event produced some very interesting talent, with the potential to compete in the Worlds before too long.

If you are 26 or younger, keep an eye out at [www.aerobatics.org.uk](http://www.aerobatics.org.uk) for more information, or register your interest by emailing [paul@paulconran.com](mailto:paul@paulconran.com)



Lasham's Richard Spencer pictured during last year's *Get into Aeros* event

## Recognising the support behind Team GB success



Max Kirschner is presented with his BGA Diploma by the BGA's Debbie Carr

MAX Kirschner received a BGA Diploma in recognition of outstanding service to the BGA. Max was team manager at the World Championships in Benalla, Australia. With team members winning one Gold and two Bronze medals, plus the overall team cup, this is one of the best ever results for Team GB.

Max's modest approach, effective style, extensive knowledge of the area and huge network of contacts ensured that, in spite of being on the other side of the world, problems were sorted with minimum fuss and allowed the pilots to concentrate on their flying.

Whilst pilots inevitably receive much of the limelight, this BGA Diploma recognises the significant and vital contribution that effective support provides to competing team members.

■ As this issue goes to press, The British Women's team is taking on the world at the 9th Womens World Championships in the Czech Republic (17 May - 4 June). Competing in the Club Class are Liz Sparrow, Claudia Hill and Ayala Truelove. Team captain is Melissa Andersson. See [www.britishglidingteam.co.uk](http://www.britishglidingteam.co.uk) and social media for updates.

## International Cloud Atlas goes online

THE *International Cloud Atlas*, first published in 1896, is now available online.

Published by the World Meteorological Organisation, the first edition of this global reference book for observing and identifying clouds contained 28 coloured photographs and set out detailed standards for classifying clouds. The last full edition was published in 1975, with a revision in 1987 that quickly became a

collector's item.

Twelve 'new' types of cloud, including the rare, wave-like asperitas cloud, have also been recognised by the International Cloud Atlas.

A key element in the evolution of the atlas has been the impact of technology, with people all over the world able to capture and exchange images on phones. [www.wmocloudatlas.org](http://www.wmocloudatlas.org)

# PATRON STEPS DOWN FROM PUBLIC LIFE

PRINCE Philip, Duke of Edinburgh, has announced his decision to retire from public engagements. He has been the patron of the BGA for the past 60 years, following an invitation by Philip Wills and Ann Welch.

Although he will no longer play an active role by attending engagements, it is hoped that Prince Philip will continue to be associated with the BGA.

The Dec/Jan 07 issue reported on a BGA luncheon at the RAF Club in London to celebrate 50 years of patronage by Prince Philip.



*Sailplane & Gliding report from Dec/Jan 07*



*Catching a Thermal* by Robbie Robertson

■ THE Guild of Aviation Artists' 47th Annual Summer Exhibition will be held at London's Mall Galleries from 18-23 July.

The Margaret Kahn trophy is awarded for best gliding related painting. Robbie Robertson, of Black Mountains GC, has submitted several paintings for this year's exhibition, including the one above. (You can see more of Robbie's work at [www.theartofsoaring.net](http://www.theartofsoaring.net))

Admission to the exhibition is free and opening times are 10am-5pm, with late opening until 8pm on the Thursday. [www.gava.org.uk](http://www.gava.org.uk)



## Success beyond the clouds

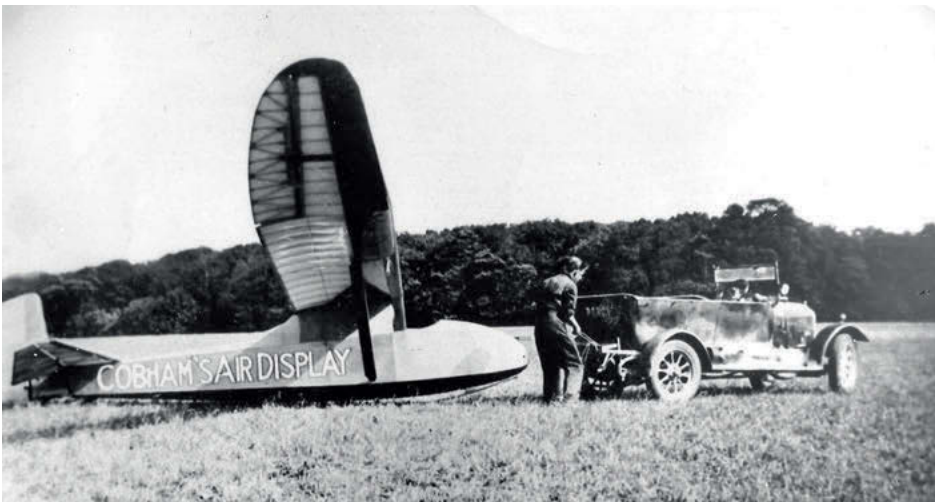
THE winners of the 2017 FAI Young Artists Contest have been announced. Working to the theme of 'Beyond the clouds', first and second place in the Intermediate (age 10-13) category were awarded for paintings featuring gliders, both submitted by children from India.

First place went to Mr Amaan for the painting above. Ms Mehwish submitted the painting that took second place, right.

The FAI Young Artists Contest has been organised every year since 1986. It is an international art contest for youngsters between the ages of six and 17.

■ The theme for the 2018 contest is 'Flying in the future'. See [www.fai.org/about-fai/fai-young-artists-contest](http://www.fai.org/about-fai/fai-young-artists-contest)





■ This photograph of a Grunau Baby (photographer unknown) was given to my brother-in-law as part of research into a book he was preparing on the local area. The glider was in the colours of Cobham's Flying Circus and I believe this photo was taken at Hunstanton on 29 July 1935. If so, this was the day before the aircraft crashed at Ramsey, Cambridgeshire, claiming the life of pilot Eric Collins. **Dick Skerry, Lincolnshire GC**

## SAD FATE OF A VENTURE

I WAS saddened to see the wreck of the Venture in Ron Linton's article (*Reflection on Lakes gliding*, pp28-30, April/May 17). The first time I left the ground was in that Venture at the Mynd. It was built for Prince Bira of Siam, who was a member at the Mynd where they still have the Bira Trophy. I always understood the only other one went to New Zealand.

I had my first four flights in it, amounting to two hours of hill soaring. It was like a T-21, but rather more intimate, having a bench seat without the T-21 spoiler box to separate the pilots. The well-known photograph of Philip and Kitty Wills in it (right) shows cosy it was.

The controls were appalling, with little effect or feel compared with the T-21. The Midland club had the ailerons extended without much, if any, improvement. It was then test flown by Bill Bedford, Hawker Chief Test Pilot. Turning left after the bungee launch, the rudder jammed full on, forcing him to go to the tiny bottom field in a full sideslip – without mishap, of course, being Bill Bedford.

My logbook shows I last flew it 61 years ago on 2 April 1956 on a check flight with the CFI, John Hickling. Having got used to the T-21 by then, the appalling controls made me reluctant to fly it slowly enough on the hill.

A quirk which caught people out when

flying in the left-hand seat was the spoiler lever, like a third stick between the other two. With the left hand on the stick and the right on the spoiler lever they rounded out with the spoilers, pushing the stick forward at the same time!

I knew of its demise after we sold it to the Lakes club, but it was still sad to see the picture and account.

**Mike Randle, Cotswolds Gliding Club**



Kitty and Philip Wills in the Venture. Photo by Tadeuz (Teddy) Proll, MGC Polish ground engineer

Please send letters (marked 'for publication') to the editor at [editor@sailplaneandgliding.co.uk](mailto:editor@sailplaneandgliding.co.uk) or the address on p3, including your full contact details. The deadline for the next issue is 5 June

# SAILPLANE & GLIDING



**Andy Davis**  
Competition 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).

## EXPERT ADVISERS



■ DG displayed its DG-1001 Club neo trainer. With 18m wingspan and neo winglets (certified a year ago), it is said to be “eminently suited for basic instruction and advanced training”. Also on show was a neo version of the LS8. Retro fit is an option.

Flight testing for LS1-f neo took place in March, with final approval expected this summer. [www.dg-flugzeugbau.de](http://www.dg-flugzeugbau.de)  
[www.mcleanaviation.co.uk](http://www.mcleanaviation.co.uk)

■ SkyNavPro is now available in the UK. A four-in-one app, SkyNavPro’s 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 is incorporated and SkyNavPro is compatible with all other FLARM devices.  
[www.skynavpro.com](http://www.skynavpro.com)



■ Lange displayed the Antares 18T (above) and Antares 23E.  
[www.lange-aviation.com](http://www.lange-aviation.com)



## AERO 2017

### S&G reports on the highlights of Europe’s biggest aviation fair, held in Friedrichshafen each April

■ Schempp-Hirth’s Tilo Holighaus (pictured right) was delighted with the impressive performance of the seven new Ventus taking part in the recent Worlds in Benalla, Australia. “There was good feedback, with four in the top seven,” he said. “It climbs well and pilots say that finding energy lines is very special. Feedback from the controls is good and the geometry works.”

The base price (excl VAT and instruments) for the Ventus is €100,000 and Tilo said the company has orders to keep them busy for the next three years. The Ventus is available with two sizes of fuselage: the roomier Performance and the Sport versions.

A self-launch variant is expected to be in the air this year, followed by a 15m version.

Discussing how interest has exploded for the Discus 2c with FES, Tilo said: “It offers high performance combined with simple flight characteristics. This makes it perfect for the club pilot with limited experience, who can fly without fear.

“People also like the option to reduce power.

At a reduced setting to maintain altitude, there is no interference from propeller and full vario compensation. Even with it on, you can still search out energy lines. It’s great to find lift at low levels and climb like a bird.

“We are now selling our gliders in countries where we have not sold in the past, such as Australia and the US.”

[www.schempp-hirth.com](http://www.schempp-hirth.com)  
[www.southernsailplanes.com](http://www.southernsailplanes.com)



Schempp-Hirth Ventus 3T with Arcus M behind





Beware the Shark: get your teeth into the FES variant of the Shark. Above right: Looking down at the HpH stand, with the TwinShark in the centre

■ HPH had an excellent show at AERO this year and surprised attendees by unveiling the TwinShark 20m Flapped two-seat sailplane – shown as the self-launching ‘MS’ variant. Craig Lowrie said: “We received excellent feedback from the many visitors who came to the stand. The TwinShark holds real potential for the next performance step forward in this popular competition class and HpH expects to fly the glider in May 2017. The company has recently built two new factories to support both single and two-seat serial production lines.”

The TwinShark directly competes with Schemp-Hirth’s Arcus and the Schleicher ASG 32 and, whilst last to the market, incorporates some new features which HpH believes will give the sailplane an edge in this popular 20m competition class. Available as Self-Launcher or Sustainer, the 20m TwinShark offers MAUW 800kg; V<sub>NE</sub> 148kts; Best L/D 49:1. A spacious cockpit accommodates tall pilots and those of generous build and a single piece, side opening canopy and extended reflex over wing delivers excellent visibility for both pilots.

The key cockpit features that have made the Shark popular have been maintained in the TwinShark and the cockpit ventilation system, in addition to the canopy vent, helps keeping temperatures comfortable.

The sailplane has not yet flown (paperwork delays), but it is expected to take to the skies in May. How much will it cost to buy? Craig said: “Expect the price to be five per cent less than an Arcus!”

In addition to the TwinShark, HpH displayed all three variants (Self Launch, Jet and FES) of the popular Shark sailplane. There are approaching 30 of the Shark sailplanes here in the UK.

The HpH UK dealership is now operated by John Gilbert, of Essex Sailplanes.  
[www.HpHUK.co.uk](http://www.HpHUK.co.uk)



Trying the TwinShark cockpit for size: BGA Chief Executive Pete Stratten and president of Euro Air Sports David Roberts (rear seat)



■ The first MiniLAK FES is due in the UK in May. Sixteen orders were placed after the first self-launching flights. Full EASA paperwork is currently still with EASA. Germany will be allowing the glider to be flown Club Class. It is anticipated that the rest of Europe will follow this lead, enabling the MiniLAK FES to compete in both 13.5m and Club Classes. (See pp38-43, April/May 17 for flight test.)

<http://lak.it>  
[www.balticsailplanes.co.uk](http://www.balticsailplanes.co.uk)

> **TURN TO P10 FOR MORE AERO NEWS**

■ Schleicher displayed its 20m two-seaters ASG 32 Mi and ASG 32 EI, the 18m Class ASG 29 Es and Open Class sailplane ASH 31 Mi. Three propulsion systems were on display: the Wankel self-launcher in the ASH 31 Mi and ASG 32 Mi, two-stroke sustainer in the ASG 29 Es and electric sustainer in the ASG 32 EI.

Australian AS representative Bernard Eckey said: "The ASG 32, in its three versions, is fast becoming a bestseller. It's popular with clubs as it's the first time a two-seater can be flown without tuition in operating a motorised glider. The battery, regulator, motor and electronics are under 90kg.

"Other nice features include a newly-developed steerable tail wheel, which is fully retractable and works in conjunction with the main undercarriage. Strobe light LEDs link to FLARM and activate when traffic is detected. Initially tested on winglets of the ASH 25, while the lights worked inside, they were hardly visible in sunlight. Two generations later, we have powerful LED lights integrated into the tail."

Celebrating its 90th year, Schleicher has built more than 8,400 aircraft since the commencement of aviation in Germany in 1951; 2,145 of these are instructional aircraft.

[www.alexander-schleicher.de](http://www.alexander-schleicher.de)

■ **Stemme had serial number 8 of the S12 on display. The company is booked up to serial number 27 and Stemme is focusing on improving delivery times, expanding from 65-90 employees. The company introduced a new lighting system for the S12. The LED light strip in the nose cone is linked to the aircraft collision avoidance system and reacts with an adapted signal according to the traffic situation.**

A full glass cockpit, including a Garmin avionics panel with two G3X touch panels, Garmin autopilot and digital engine control monitoring, will be available for delivery from the second quarter of 2018. [www.stemme.com](http://www.stemme.com)

■ **Milvus has extended its range of clothing for glider pilots, which now includes short trousers (sized for both men and women) at around €139; a jacket with zips everywhere imaginable for €249; and UPF+ UV protection hats available in two designs for around €35.** [www.milvus.aero](http://www.milvus.aero)



The Alexander Schleicher display



Above: The 13.5m GP 14 (€82,900, excl VAT) and, below, the 15m GP15 (€93,900, excl VAT)



■ The Trig aerobatic team toured through Europe on the way to Friedrichshafen in its S1 Pitts classic aerobatic aircraft. Pilots Richard Grace and Dave Puleston were on hand to assist with questions on 8.33 radios and transponders. Trig has published a CS-STAN installation guide, aimed at helping European pilots to understand the benefits of using EASA's approval route when fitting 8.33 equipment. [www.trig-avionics.com](http://www.trig-avionics.com)



Trig's Jon Roper with TN70 WAAS GPS, compatible with any Trig transponder to provide a complete ADS-B Out solution

■ Polish company Peszke displayed its GP14 and GP15, the latter finished just in time for AERO. The GP14 was on show at the BGA conference in February accompanied by Sebastian Kawa, who was also at AERO. Sebastian was taught to fly by Grzegorz Peszke, founder and lead designer of Peszke.

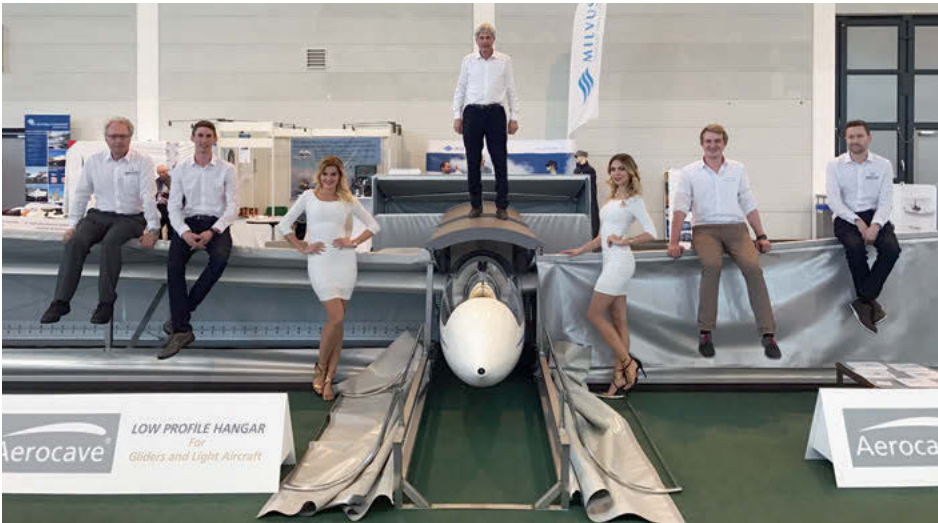
The UK team for GP gliders is G Dale, Annie Laylee, Shaun Lapworth and Luke Dale.

"The 14 is in test flying at the moment, and the 15 is just about to fly," said G. "They are both slim and high performance gliders fitted with an electric self-launch system.

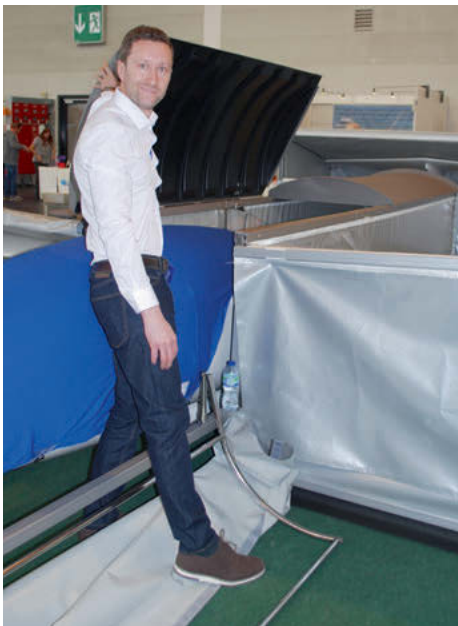
"The gliders are built to CS22 standards, but certification is tricky with EASA delays. In addition the class rules for 13.5m are in a process of change, with the aim of opening up the class to a new generation of self-launching electric gliders.

"This all means that the exact path for both certification and competition is a little confused, with the IGC and EASA still moving the goalposts. We are expecting this to be resolved before our first deliveries in around 18 months."

[www.gpgliders.co.uk](http://www.gpgliders.co.uk)



The Vertigo Covers team (and guests!) test the load bearing of the Aerocave at Friedrichshafen



Vertigo Covers founder Andrew Blundell demonstrates the hangar's lids

■ The UK's Vertigo Covers launched the 'ultimate toy box' at AERO. Aerocave is a low profile hangar for gliders. Tailored to fit the glider, with lifting lids to bring the fin out, the patented hangars are completely removable and can be easily transported to a different airfield, or even country. A glider can be ready for flight in just minutes.

Made of anodised aluminium and stainless steel, the Aerocave is rated to 120mph winds and has full snow loading.

The hangars are considered temporary buildings and the shape will interlock, giving a smaller footprint. A fully sealed groundsheet is also available and the hangar is ventilated, with a double roof to avoid condensation.

The starting price, for a single-seater, is £13,000-14,000 so it compares with the cost of a trailer. Designs are also available for all aircraft from GA, rotary and business jets.

[www.vertigocovers.co.uk](http://www.vertigocovers.co.uk)

■ It's been another busy year for Skylaunch, with winches delivered around the world from the UK to Spain, Columbia and Japan. The company has a new single drum winch model, the Uno, priced from €48,000. Launch rates are approximately 80 per cent of a twin drum operation. [www.skylaunchuk.com](http://www.skylaunchuk.com)



Left: the Skylaunch team and, above, Mike Groves with Cambridge GC's re-engineered Tost winch, delivered to the club last August and borrowed for AERO



Bernard Eckey with the fourth edition of his best seller *Advanced Soaring Made Easy*

> **AERO 2017**  
**PHOTOGRAPHY**  
**BY SUSAN NEWBY/  
PAUL MORRISON**



■ **FUTURE AERO DATES:**  
18-21 APRIL, 2018  
11-14 APRIL, 2019 (This will be the next year that the majority of glider manufacturers will exhibit at Friedrichshafen)

> **TURN TO P12 FOR MORE AERO NEWS**



■ Germany's gliding champion Uli Schwenk (above right) is the face of Jaxida covers. [www.jaxida-cover.de](http://www.jaxida-cover.de)



■ German company Paratec was showing its square parachute technology. The 'wingman' is a steerable parachute, available in three sizes. They're not cheap though, with prices starting at €3,000. [www.paratec.de](http://www.paratec.de)

■ The Vintage Glider Club always puts on an impressive display. The theme for this year was Swiss Elfe gliders, which, despite their appearance, are wooden gliders. Also on display was an incredibly realistic model (below) complete with resting pilot, which took 600 hours to create at a cost of almost €4,000.

[www.vintagegliderclub.org](http://www.vintagegliderclub.org)



■ Akaflieg students displayed some of their latest projects, including the AK-X, pictured left. The Akaflieg's Jonathan Grässer said that this project has been in development since 2010. The wing sweep has now been increased by 25 degrees to improve stability. The project still has around three years until it is completed, but not flown. Akaflieg hope that this 15m span aircraft will eventually compete with 18m gliders.

## Centre stage for Diana, goddess of the hunt



The Diana 2's instrument panel can be customised

■ [www.diana2sailplane.co.uk](http://www.diana2sailplane.co.uk)  
■ <http://diana.avionic.pl>

THE Diana 2 was the focal point on the Avionic stand. This high performance glider has been back in production following the transfer of production rights to Polish company Avionic in October 2016.

Named after the Roman goddess of the hunt, the Diana has proved itself in many competitions over the years. Sebastian Kawa won his first three (2005, 2007, 2010) FAI World Grand Prix Championships in a Diana 2. Three pilots (Janusz Centka, Stefano Ghiorzo and Sebastian Kawa) have also flown the Diana 2 to first place in the World Championships in the 15m Class (in 2006, 2010, 2012, 2014 and 2017).

Piotr Wiszniewski is the Diana dealer for the UK and Ireland. He outlined some of the sources of the Diana's high performance: "The glider itself is of a very light composite carbon-aramid-epoxy structure. Without ballast, it's approximately 180kg. The pilot's lying position makes the fuselage diameter smaller. The tail fin also has a really small

diameter, which gives the glider massive fuselage drag reduction. An unusual design of wing, built in two monocoque parts with a beautiful curved shape, weighs approximately 46kg without water ballast. These few differences make this aircraft's lift to drag ratio over 50:1, which is a good result in the 15-metre flapped class. Also, flaperons over the whole wing span let the pilot make a turn from 45 degree bank one side to 45 degree on opposite side in just 2.5 seconds."

Piotr said: "Thinking about pilot comfort, Diana's designer decided to make a side stick, which allowed him to decrease the distance between instrument panel and the pilot. This interesting solution makes navigation and other instruments more accessible and it's beneficial for the pilot's arm to rest during long hours of soaring.

"Another positive is that, due to special manufacturing processes and the unusual wing design, there are no waviness effects on



the wing surface, even after years of flights."

Sebastian Kawa has proved the Diana's exceptional performance in a competition where poor weather condition without strong thermals forced other pilots to dump their water ballast, but he didn't have to and kept the extra speed until the finish line. Jerzy Zieba, from the USA, won a Silver medal in the 2016 USA Grand Prix using similar tactics, keeping the extra weight until the finish line.

Piotr said: "There are a number of other pilots as well who have won competitions across the world. I know of about 30 medals, most of which are Gold and Silver. I have been asked whether the Diana could be competitive in the hands of not such a high ranking pilot. Possibly, as I am aware of a few 'middle ranking' pilots who have won medals in competitions while flying the Diana 2."

An instability in manufacturing through the years of successful competitions has, hopefully, come to an end now the IP rights for design have been passed to Avionic.

Piotr said: "The company has already announced a range of improvements to increase quality, comfort and performance. Sailplane customisation has become really important for the new manufacturer."

He lists initial modifications on the Diana as:

- Trim and water tank valves modified for easier handling.
- Battery mount position for better accessibility.
- Better external radio antenna.
- Leather interior in variety of colours.
- Ergonomic armrests.
- More comfortable backrest and cushion.
- Increased canopy opening angle.
- Tiltable instrument panel.
- Decreasing noise at high speeds.

There are also ongoing plans for new

versions of the Diana 2. Piotr said: "With the exception of the 15-metre flapped class of Diana 2, the next version will be a self-launcher with FES electric drive. Another version will have a 13.5-metre wing span. There are more details about Diana's future, which will be announced anytime soon."

The Diana 2 is EASA certified, with a restriction allowing the glider (with full water ballast) to be operational only for pilots who have accumulated more than 100 hours of flight experience on other flapped sailplanes.

The cost of the Diana 2 starts at around €75,000 (excl VAT) for the basic version.

■ If you are interested in seeing the Diana 2 and having a check flight, there will be the opportunity this summer at Lasham during the 19th FAI European Gliding Championship in August. Piotr will be at Lasham with the Diana 2 on 19-20 August. Contact him at [www.diana2sailplane.co.uk](http://www.diana2sailplane.co.uk)



## AVIONIC TRAILERS

Since 1997, Avionic has been producing modern trailers for all types of glider. The unconventional arrangement of the Diana 2's structural design, with 1.5-metre spar stump integrated into fuselage, led to the development of a new trailer suitable for the storage and transport of the Diana 2, as well as any other modern high-performance sailplane.

■ The cost of a trailer for the Diana 2, including spare wheel, lights and fuselage secure straps, is €8,500

■ Avionic has been participating in the aviation industry for many years. Among other projects, it produces composite parts and assemblies for the EXTRA 300 aerobatic aircraft, and also components for Grob aircraft. Avionic plans to develop and keep the Diana project continuing.

> TURN TO P14 FOR MORE AERO NEWS

Below: Piotr Wiszniewski is the dealer for the UK and Ireland. He is bringing the Diana 2 to Lasham in August

■ On the few occasions I escaped a busy HpH stand, I witnessed a very strong emphasis on electric propulsion, writes *Southdown GC's Craig Lowrie*. The video of the electric Extra 330LE towing a glider was really impressive, although I could not get information on how many times it could do that before needing a charge. There's no question that electric is the way forward and UK sales of the Shark es (FES) support that. Battery improvements seem certain now, with strong demand from the aviation and automobile industries alike and with individuals like Elon Musk pushing hard.

A level of frustration continues at the level of complexity now being allowed on deregulated aircraft, which is allowing this segment to see unprecedented growth whilst gliding remains simple yet subject to unsustainable level of regulation. The gliding community collectively must find a solution to this or see an acceleration in its decline as pilots, engineers and manufacturers get swept up by this power-plane market. Gliding should work aggressively for a similar level of deregulation in my strong opinion.



Paul Morrison tries out the rear cockpit of the HpH TwinShark

# HIGHLIGHTS

## UK glider pilots share their personal experiences from this year's AERO

AS a regular attendee I was particularly looking forward to this year's show, being both the 25th anniversary and also a 'gliding year' show, writes *Oxford GC chairman Paul Morrison*. It did not disappoint with the usual halls full of aviation goodies.

In previous years I've commented on the abundance of aircraft that are not available in the UK due to lack of UK certification/approval and this year was no different. However, as the first show post-Brexit decision, did I detect a sense of irony as well as the smile when being told 'non' or 'nein' in response to my enquiries?

Gliding-wise, the star of the show was widely regarded as being the first appearance of the new HpH TwinShark and very nice it was too. Although intended to be a competitor to the Duo Discus and not a new trainer, my fellow Oxford GC instructors and I were keen to try the rear cockpit for size. Pilots of various sizes all fitted, but it was noted that the seating position was such that your knees were very high, making actually getting out again interesting for those with a lower C of G!

Next door to HpH, re-lifed Blaniks were on display and with the prospect of a 3,000hr life extension, a reasonable Euro price (currently!) and a relatively quick delivery, these could be a lifeline in the future for those clubs such as mine who are still reliant on the venerable K-13.

At the opposite end of the price spectrum LS and DG, etc, had their usual tempting products on display although interestingly the older aircraft had not been forgotten with, for example, new neo winglets for the LS8 being offered. Similarly, FES conversions were on offer for several glider types, but with a typical price of between €25-30,000 (+VAT!) you'd need deep pockets.

Elsewhere, in possibly the most welcome news for UK glider pilots, SZD announced that the MAUW of the

Perkoz will be increased by 30kg, making the maximum cockpit loads of 110kg in each seat simultaneously in this delightfully easy handling glider a viable proposition for UK clubs. Unfortunately, as was common, the Euro price is less attractive now than it was before.

As noted in other years, the SDDR class is gaining a foothold with both the Silence 2 and GP14 and GP15 gliders being on show, the latter literally hot from the moulds. With an anticipated retail price of circa €90K they are not cheap, but you can't deny you do get a lot of potential flying fun for your money. Tucked away in other halls were several other SDDRs, including a self-launching glider with a fin-mounted electric motor that promised Cirrus-like performance. Maybe these will find their way into the UK?

Whilst the glider hall is naturally the focus for most S&G readers, I would urge any visitors to make sure they visit the other halls too, as little gems can also be found in there. The VGC, for example, had its usual excellent display of vintage gliders, this time including, ironically, an Elfe glider with a tail code of UK complete with EU flag. Who said Germans have no sense of humour?!

Siemens are continuing to invest in electric powered aircraft and, whilst an electric Extra 330LE may not be on most club's shopping lists when considering a new tug, having recently towed an LS8 neo to 600m in 76 seconds, setting a new world record in the process, it offers an interesting glimpse into the future with no shock cooling to keep tug masters awake at night!

Whilst 2018 will not be a gliding year, with the prospect of interesting toys, great company, excellent food and the delightful town of Friedrichshafen and Zeppelin and Dornier museums nearby, why not come to AERO 2018? You won't be disappointed.

### **BGA Chief Technical Officer Gordon Macdonald's thoughts on AERO 2017:**

THIS show enables you to talk directly to EASA/glider, engine, avionic, designers/manufacturers of the entire light end

spectrum of what Europe has to offer. This year I booked a landing slot to fly into Friedrichshafen airport from Lasham. It was only four hours from taking off from Lasham to walking through the doors at the AERO show.

For me, the show mostly involved meetings/briefings with EASA policy makers and product designers, discussions with glider factories and many other stake holders.

● **EASA deregulation plans for light aircraft designers/manufacturers.** EASA want a declarative system, where EASA just sample the process, rather than checking every single detail. Amalgamating EASA part 21 design approval, manufacturing and maintenance approvals into one audit process, rather than three separate applications and audits, will save a lot of time and money.

● **Engine options of what type of engine you want with your glider have never been so varied.** Electric, jet or piston (including Wankel) engines. An interesting possible future option some non-glider companies were showing was a hybrid range extender engine system for electric-powered aircraft. These charge the battery, with Wankel engines acting as generators to extend the range. A lot of my discussions revolved around how to qualify BGA inspectors to maintain these engines.

Jet engines used in gliders have mostly achieved EASA certification, but the installations into the gliders have not. Talking to designers, this delay is a source of frustration.

● **The non-EASA SSSR market is buoyant and innovative, with propulsion and lightweight cutting edge structures/aerodynamics.** These aircraft lack a common European-wide certification policy that makes it difficult for some of them to be flown in the UK. But I suspect some of their innovations will evolve into EASA gliders (the FES has). I particularly like the adoption of ballistic parachutes in these motor gliders.

● **EASA crashworthiness of gliders, as mandated by changes to EASA CS22 design requirements a few years ago, requires gliders to pass static load tests to improve crashworthiness.** This has resulted in some newly-certified designs (especially two-seaters) having significantly strengthened and heavier cockpits compared with legacy designs that are still in production. But most people who buy gliders are not aware of the EASA crashworthiness requirements of recent designs. This is probably the biggest structural difference between EASA and SSSR

gliders (apart from ballistic parachutes).

● **Ballistic chutes in EASA gliders.** Except for pure sailplane Discus 2/Ventus 2 options, EASA gliders are the only area of light GA that are not adopting off-the-shelf developed product ballistic chutes into new designs. In the ultralight and bigger powered aircraft market these are standard options. The ballistic parachute is a similar weight to a normal parachute (less for two-seaters) and surprisingly cheap. Having seen tragic results of mid-air collisions and unconnected controls, I would like to see this option encouraged in EASA design code CS22.

The UK CAA pioneered this with UK SSSR regulations that encouraged adoption of ballistic parachutes by allowing a maximum weight increase that is double the weight of the parachute installation. This way designers can benefit their overall design (perhaps towards crashworthiness?), while the aircraft user has an added safety system that even old and disabled people can use.

● **What was the most interesting thing at the show?** For me the Siemens electric and hybrid stand was outstanding. You could tell them what horse power and endurance you want, they then show you what prototypes they had to meet these requirements. Even on my ASH 25E, the combined battery and engine weight was not dissimilar to my obsolete Rotax 275 engine with full fuel. For these to become a retrofit option, somebody has to formally test it in their plane (UK E Conditions allows this) and then get it certified. Possibly using the EASA recently simplified STC (Supplemental Type Certificate) system.



Klaus Ohlmann, a guest on the Stemme stand, took part in Saturday's airshow flying the e-Genius electric aircraft developed by the Institute of Aircraft Design at the University of Stuttgart

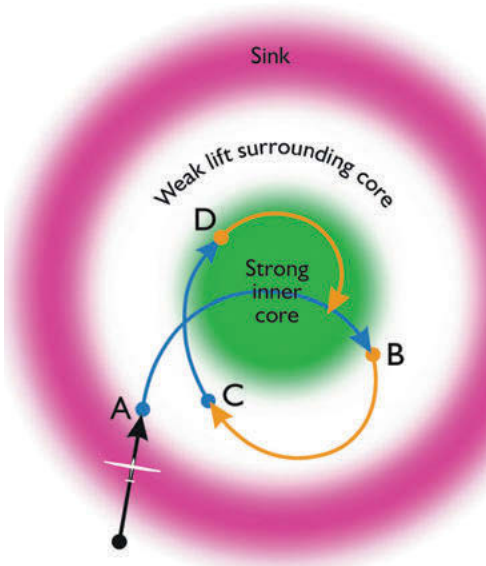


The Extra 330LE recently towed an LS8 neo to 600m in 76 seconds, setting a new world record in the process. Siemens is using the Extra 330LE for flight testing and optimisation of electric propulsion systems built around the SP260D electric motor

## SOLUTIONS TO THERMAL CENTRING - PART THREE

# WHY OPEN OUT IN THE SURGE?

Tony Cronshaw talks to leading coaches about how to use opposite logic to centre thermals



Above, figure 1:

A-B Turning into lift

B-C Steep angle of bank due to weakening lift

C-D Shallow angle of bank due to increasing lift

D Maintain constant angle of bank while in steady lift

(Illustrations enhanced by Steve Longland)

**M**ANY pilots centre thermals using the 'open-out-in-the-surge' method, a rule that is perplexingly opposite to the 'dig-into-the-surge' rule. Tony Cronshaw talks to leading coaches Bernard Eckey and Kevin Atkinson to find out more.

**TONY:** *In our first Ask the Coach article [1] two methods of centring thermals were mentioned: The dig-into-the-surge method which we discussed recently in S&G [2], [3] and the open-out-in-the-surge method. How come two apparently opposite methods can succeed in centring?*

**BERNARD:** That is a very valid question and one that I get asked quite frequently. Of course, there are many different ways of centring thermals and the more pilots we talk to, the more answers we get.

We have to keep in mind that the characteristics of thermals not only vary from one day to another, but they can also change as the day progresses. The height at which we enter a thermal also plays an important role. Down low it almost always

pays to stand the glider on the wingtip when we encounter a strong core, but at altitude it usually pays to delay the banking of the glider a little and open out in the surge. In other words, we constantly need to adapt our centring method if we want to get into the core of the thermal quickly and if we want to milk it efficiently. I know that's easier said than done!

More advanced and highly experienced pilots read the sky and FEEL the air to work out where the core is located. Then they promptly adjust the angle of bank to stay in the strongest part of the lift where they

extract the maximum rate of climb.

**TONY:** *The inexperienced pilot unfortunately lacks those skills, so how would a newcomer use the open-out-in-the-surge method?*

**BERNARD:** In *Advanced Soaring Made Easy* I summarise it as follows: INCREASE THE ANGLE OF BANK AS THE LIFT DECREASES, AND DECREASE THE ANGLE OF BANK AS THE LIFT INCREASES.

However, it helps when the pilot has got a vague mental picture of the thermal and a rough idea where the thermal is located in relation to his or her current position.

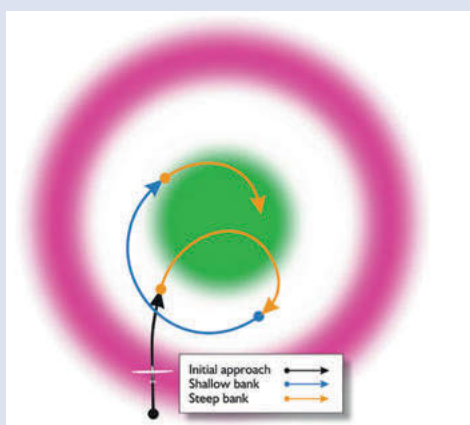
**TONY:** *Can I rephrase that as: Step 1: On feeling the surge (or on encountering increasing lift) use shallow bank; Step 2: If the vario readings decay again, tighten up to get back to the core quickly?*

**BERNARD:** Yes, that's 100 per cent right! Each time we change the bank angle, the path of the circling glider is nudged towards the core. FEELING THE SURGE is the key to success because there is always a delay of 2-3 seconds before a mechanical vario can register the lift. So the best moment to open out is immediately when the surge is felt. If you miss the surge, then open out as soon as the vario shows a trend of better lift. Never wait for a peak vario reading: That would be too late. Figure 1 (left) from my book explains the method.

**TONY:** *Your diagram interestingly includes a third step: Once the circle is completely in the core, the glider is shown turning tightly. This is where the vario is showing strong/steady lift compared with previous passes through the thermal where the lift was not steady. Can I call this step 3: If vario shows steady lift, turn tightly in the core?*

**BERNARD:** Spot on, Tony! When the vario screams evenly, it usually coincides with





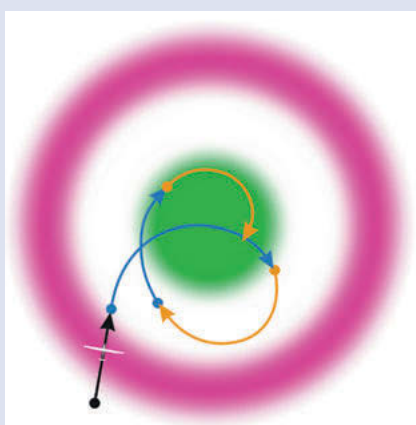
**Method:** Dig the wing into the surge/lift

**Basic steps:**

1. On feeling the surge (or increasing lift\*) tighten up. If in steady lift, keep turning tightly in the core. If vario decays, go to step 2.
  2. Reduce bank for a wider circle back to the core. Go to step 1.
- \* Don't wait for vario to peak.

**Variants:**

BGA [5] – As above.  
 Kevin Atkinson's "conventional centring" [6] – as step 1. Instead of step 2 see vario min method.  
 G Dale [7] – "Push up hill" (don't slow down in the surge).  
 Don Puttock [8] – At step 2, continue with steep bank until vario shows minimum then reduce bank.  
 Sebastian Kawa [3] – At step 2, continue with steep bank then judge when/where to open out into shallow turn back to the core.  
 Reichmann's "method 3" [10] – At step 2, bank even more steeply for a half a turn, then as lift starts to improve again, bank gently for a half a turn, then go to step 1.



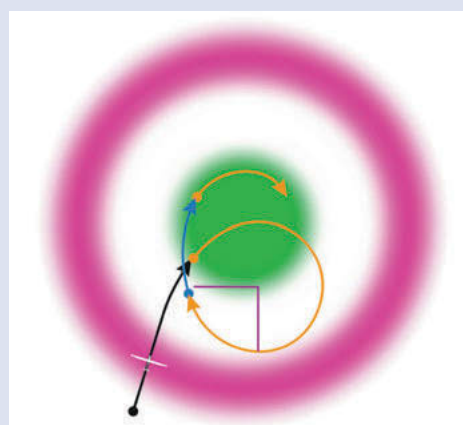
**Method:** Open out in the surge/lift

**Basic steps:**

1. On feeling the surge (or increasing lift\*) use shallow bank. Go to step 2 or 3.
  2. If the vario readings decay again, tighten up to get back to the core quickly. Go to step 1.
  3. If vario shows steady lift, turn tightly in the core.
- \* Don't wait for vario to peak.

**Variants:**

Bernard Eckey [11] – As above.  
 Welch/Irving's "surge method" [9] – step 1: Start to straighten up immediately on the surge. Step 2: As soon as glider is straight, recommence the turn.  
 Ken Stewart [12] – Step 1: When feel surge/lift, open out (eg 30° bank) or even straighten up if just been through sink. Step 2: 1-2 secs later, increase bank to thermalling angle (eg 40-45°), then go to step 1.



**Method:** Vario minimum

**Basic steps:**

1. If passing in and out of the core, straighten up momentarily about 90° after vario\*\* shows minimum. Go to step 2.
  2. As soon as the wings are level, recommence a tight turn. If not in steady lift all the way round, go to step 1.
- \*\* At min vario, inner wing points at core.

**Variants:**

Welch/Irving's "Worst heading method" [9] – As above.  
 Kevin Atkinson [6] – To "re-centre", wait 4-5 seconds after worst vario, briefly reduce bank then return to steep bank.  
 Derek Piggott [13] – Note area of best area of lift whilst circling, then reduce bank for 5 seconds next time approaching this area, then resume steep bank.  
 B Eckey, G Dale, K Atkinson, K Stewart, S Kawa, etc – If circle passes through sink then use this method to make a bigger move away from the sink, eg straighten up for 3 seconds before recommencing the turn.

greatly reduced turbulence – a clear sign that we are nicely centred within the core. Now, more than ever, we need to fly accurately. By that I mean we maintain not only a steep 40-45° bank angle, but also an optimum airspeed. The best way of doing just that is to maintain a constant attitude, and keep the nose of the glider in the same position in relation to the horizon all the time. Trying to maintain airspeed by reference to the ASI is a very bad habit. It means that we are forever chasing the right speed, which makes efficient thermalling almost impossible. Worst of all, it prevents us from conducting a proper look-out.

**TONY:** *By the way, how did you find out about this method when you were originally learning to soar?*

**BERNARD:** Like a lot of people, my training – in Germany at that time – was all about becoming a safe 'circuit pilot'. However, being a new K-8 pilot at a busy airfield allowed me to pick the brains of the hot-shot pilots around me. Talking to them and copying their successful techniques soon gave me a good idea in terms of dealing with thermals.

I really wish gliding would be taught in a slightly different way. We all too often turn our students into instrument watchers by exposing them to these gadgets before they even get into a glider for the first time. As an advanced coach I seldom deal with real newcomers these days, but I promote the covering of ALL instruments until the student is ready to take the controls during a winch launch or aerotow. By doing so, they

Above: figure 2



**Tony Cronshaw** is an Ass Cat instructor at Cambridge Gliding Centre with over 1,500 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



Kevin Atkinson is the club coach lead for the BGA Aim Higher initiative ([www.glidering.co.uk/bgainfo/aimhigher.htm](http://www.glidering.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 4,500 hours gliding, including competing in UK national and regional competitions. He also has more than 7,500 military jet hours (Tiger Moths to Typhoon)

■ Kevin's book *Gliding in Lift and G-SINK* is available at [www.bgashop.co.uk](http://www.bgashop.co.uk) or direct from [kratkinson@yahoo.com](mailto:kratkinson@yahoo.com)

☞ quickly learn to judge speed by attitude, airflow noise and control force and, by the time the instruments are uncovered, they can already fly without constant reference to all these expensive gadgets on the panel. Another big benefit is that their look-out is usually 200 per cent better and that they can already FEEL the air, which allows them to get into the core by using their 'seat of the pants'. That's an interesting topic in itself, one that we could elaborate on at some other time.

**TONY:** *If I can turn to you, Kevin, which methods of centring do you recommend?*

**KEVIN:** I think it's important to be flexible and have a few different methods up our sleeves, though admittedly the toolbox of the inexperienced pilot will always be more limited than the advanced pilot's. However, what I call 'conventional centring' should be in everyone's toolbox. Put simply: IF THE LIFT INCREASES IN THE TURN, KEEP INCREASING THE BANK.

It's a response to the lift increasing dramatically and continuously, and an indication that we are entering the core. So we dig the wing into the turn to stay in the core. This is also the moment when the inner

wing tries to lift (which we then oppose) and the yaw string deflects away from the core – because gusts affecting the yaw string and the ASI are caused by the thermal vortex. These are tell-tales that we are entering the core, so we need prompt action to tighten the turn and hence circle all the way round in the core.

**TONY:** *If we are not fortunate to be in good lift all the way round, what method do you recommend to move the circle towards the core?*

**KEVIN:** To re-centre, a good option is the 'vario minimum' method, namely: 4-5 SECONDS AFTER THE VARIO INDICATES THE WORST CLIMB RATE, REDUCE THE BANK FOR ABOUT 1-2 SECONDS BEFORE RETURNING TO THE ORIGINAL BANK ANGLE.

**TONY:** *The 4-5 seconds equates to about a quarter of a typical thermalling turn, which is therefore similar to Welch/Irving's 'worst heading method' [9] where the pilot momentarily levels the wings 60-90 degrees after the worst (min) vario.*

**KEVIN:** Rather than actually bringing the wings level, it's better to reduce the bank

# More for less



Contact Haywards to find out if you can get more for less. Our new rates and policy covers could mean you get more insurance cover for less money.

Call Nigel, Tim or Liam on **0207 902 7800** or e-mail [info@haywards.net](mailto:info@haywards.net)  
Please quote F1609

**Aviation insurance people, working for you**



HAYWARD AVIATION IS A TRADING NAME OF JLT SPECIALTY LIMITED

THE ST BOTOLPH BUILDING • 138 HOUNDSDITCH • LONDON EC3A 7AW  
TELEPHONE: 020 7902 7800 • FAX: 020 7928 8040



JLT SPECIALTY LIMITED IS A COMPANY REGISTERED IN ENGLAND  
REGISTERED OFFICE AS ABOVE • COMPANY NO 01536540 • VAT NO 244 2321 96  
A MEMBER OF THE JARDINE LLOYD THOMPSON GROUP • AUTHORISED AND REGULATED BY THE FINANCIAL CONDUCT AUTHORITY

HAY/0117/1032

for a moment and then re-apply the steeper bank. Straightening up could mean a bigger shift than intended. Here's an analogy: When learning to play golf, we're unlikely to get a hole in one with a big hit – which is more likely to put you in a bunker. It's better to make a smaller, controlled shot each time to get a bit closer. So when we're desperate to hang onto a thermal, a number of small nudges will be better than a riskier big shift.

Remember every circle is an opportunity to feel the air and map out where the core and the sink are located. However, if our circle takes us through sink we must move the circle over further, and that's when actually levelling the wings will be the right answer to escape from the sink. Once we've done that we can worry about centring the lift. Remember: "Any lift is good, any sink is bad!"

**TONY:** *Figure 2 (see p17) summarises and compares the three methods we've been discussing with further related methods referenced underneath. The path icons simplify the idea of each method, omitting the typically iterative nature of these methods. The thermal is approached initially the same way in each case: The glider crosses the sink at block speed, slows down to a speed suitable for a steep thermalling turn and starts a gentle turn towards the side where the core is judged to be. The colour coded arcs then show how the different methods use steep and shallow angles of bank to get centred.*

**KEVIN:** When it's set out like that, it's tempting to compare the various methods to try to work out which is best. I suspect answering that question won't be easy! One reason is that a lot depends on how strong the thermal is, the manoeuvrability of your glider at that particular moment, how quickly you respond and how your instruments are set up. We should also remember that some people are better at feeling the surge than others, and some higher mass gliders, especially full of water when the handling changes, transmit less feeling through to the pilot. So choice of method can be affected by that too. In the end, I think it's a matter of finding out what works best for a particular pilot in particular conditions.

**TONY:** *The key point is that the pilot has many choices on how to solve the centring puzzle, including further solutions found in gliding literature not discussed here. With so much choice available, what does this mean*

*for the pilot wanting to acquire new skills?*

**KEVIN:** For the newcomer, the good news is that centring does not have to be a 'black art'. It can be taught as a logical procedure once we have knowledge of the theory and get practical support from an instructor/coach. There is also an opportunity for the intermediate pilot to try different methods when suitable situations present themselves. Having multiple tools in our toolbox will be far better than always using one favourite method. And beyond this, the advanced pilot has the opportunity to blend different methods together, whilst integrating into the equation visual clues and the feel of the air. Solving each situation that presents itself then becomes a source of intellectual challenge and enjoyment.

**TONY:** *That's also the message from John Coutts in his classic S&G article [4] which describes the need to adapt our centring methods to different cloud types/sizes, thermal strengths or blue conditions.*

- [1] *Thermalling secrets of success*, S&G, Oct/Nov 2013, pp8-13
- [2] *Core Basics*, S&G, Feb/Mar 2017, pp8-10
- [3] *Ways to get that feeling*, S&G, Apr/May 2017, pp8-11
- [4] *Getting to the core of clouds* John Coutts, S&G, June/July 2000, pp30-31
- [5] *BGA Instructor Manual*
- [6] *Gliding in Lift & G-SINK* Kevin Atkinson (2015)
- [7] *The Soaring Engine vol. 1* G Dale
- [8] *Dartmoor Gliding Society Student Notes* Don Puttock
- [9] *New Soaring Pilot* Welch and Irving (third edition 1977)
- [10] *Cross Country Soaring* Helmut Reichmann
- [11] *Advanced Soaring Made Easy* Bernard Eckey
- [12] *The Glider Pilot's Manual* Ken Stewart (fourth edition 2003) & *The Soaring Pilot's Manual* Ken Stewart. (2000)
- [13] *Gliding - A handbook on soaring flight* Derek Piggott (4th edition 1976)



Bernard Eckey is a pilot, instructor, record holder and head coach for South Australia. He flies an ASH 30Mi and has 3,500 hours (including multiple 1,000km flights and one 1,116km FAI triangle)

■ A revised and extended fourth version of Bernard's best-seller, *Advanced Soaring Made Easy*, is now available. It costs €54.90 plus P&P. To purchase, contact [eckey@internode.on.net](mailto:eckey@internode.on.net)

## TRYING TO MAINTAIN AIRSPEED BY REFERENCE TO THE ASI IS A VERY BAD HABIT

■ In the next Ask the Coach, Tony talks to Kevin Atkinson and Mike Fox about safety when thermalling and why the right techniques are sometimes counter-intuitive.



**EES Aviation Services**

Husbands Bosworth Airfield  
[www.eesaviation.com](http://www.eesaviation.com)  
Tel: 01858 880807 07729 322804  
Lutterworth, Leicestershire LE17 6JJ

Complete maintenance and repair service for all aircraft  
BGA & LAA inspector, authorised CT microlight repair agent  
Authorised Ikarus C42 Repair Agent

Photograph courtesy of [glidingsport.com](http://glidingsport.com)

# CREATING A STIR OVER SCOTLAND

One day in April saw some amazing flights, including a number of 500kms and five 10,000ft+ climbs

Loch Tay – above Killin from lowest lenticular level (John Williams)



Looking west up to Braemar and the Linn of Dee



South-west view to Loch Tay and the prospect of a really fast run

**O**N 5 April, Sant Cervantes and John Williams launched from Portmoak with 500km+ declarations. They created a stir when Sant, in his Discus, went around twice to be the first Standard Class glider to complete more than 1,000 declared kilometres in the UK, while John, with an earlier self-launch in the 20m Antares, went around three times. Afterwards S&G asked them both for their thoughts.

**SANTIAGO CERVANTES:**

In 1973, Robbie Robertson and I brought the Nympsfield club K-8 up to Portmoak.

We both got our Gold heights and I will remember to the end of my days the glider glistening, the wings covered in frost as we came down from 14,000ft on a beautifully clear and crisp spring evening. I was captured forever.


So is there any need to ask why I love wave?

The 500kms are irrelevant. What is relevant is flying along at over 100kts, just like a jet, smooth as silk, constantly looking ahead for the next jump.

There are times when one is in complete harmony with the environment.

One's balanced on the knife edge of optimum performance. It's you, the glider, the sky and the mountains. At times one feels that one's touching the face of God.

I've had the privilege of flying in the Antarctic, the most beautiful place in the world. It's a cold, hostile, pristine environment and it does not care whether you live or die. You're nothing and you realise your significance in the world.

Flying over Scotland on days like 



Looking SW from in the lee of the Cairngorms. One can almost hear the wave roaring



Heading to Comrie from the final turnpoint. On the previous leg I'd had to use the high stuff, but now there's no need. A straight wellie home



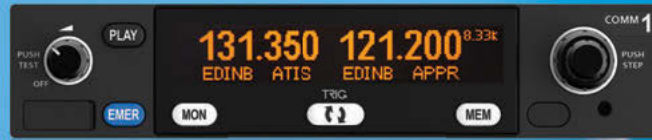
A final backwards glance to our playground before returning to Portmoak (Photographs on this page by Sant Cervantes)

## 8.33 – IT'S TIME FOR TRIG

Smart, affordable, future-proof



TY91 – 8.33 VHF



TY96 – 8.33 VHF



Order now from your Approved Trig Dealer  
[www.trig-avionics.com](http://www.trig-avionics.com)

**TRIG**



Tel: 0116 238 8874  
[info@forbesbrokers.com](mailto:info@forbesbrokers.com)  
[www.forbesbrokers.com](http://www.forbesbrokers.com)

**Don't fly your glider over the winter?  
Then why pay for full flight risk cover?  
Contact Forbes for a reduced premium  
including winter ground risk only cover**

**At Forbes our friendly team offers:-**

- ✓ Highly competitive pricing for individuals and clubs
- ✓ Sound advice you can trust
- ✓ A proven smooth claims handling service
- ✓ Exclusive policy wording only available to Forbes
- ✓ 65 years of gliding/100 years of insurance experience
- ✓ The experience of a former Club CFI, current BGA Full Cat and CAA SLMG Instructors
- ✓ Competition/Mountain/Overseas Experience
- ✓ Many years of service on Club Committees
- ✓ All aspects of aviation and business insurance
- ✓ 24/7 Mobile Phone Availability

**If your broker answers no to any of the above points then please talk to Forbes**



[GLIDEorama.com](http://GLIDEorama.com)  
New Zealand

**The World's best  
Mountain Soaring**

Ridge, Thermal, Wave - October through March



After the final finish at Killin (John Williams)

☞ 5 April is the same. You are a living entity in harmony with the majesty of our surroundings, part of it, at one with it.

It's my home. God's own country. Beats going around in circles.

**JOHN WILLIAMS:**

I'm old enough to remember the late, great Dave Allen on the telly, a comedian once described as "a tremendous observer of the idiocies of life". He told the story of a forger whose printing press had gone wrong and left him with a stack of £18 pound notes. When asking to change one in a remote pub he was told: "Certainly Sir – would you like two nines or three sixes?"

August 2007 (two laps of a 770km task, see *S&G* Oct/Nov 2007, pp34-37, *One 750 isn't enough for this 'ladder slave'*) and April 2017 left me with a similar sense of the incongruous and the ridiculous, with just a hint of challenge and amusement. John Tanner captured it perfectly – "Finally there is someone capable of knowing the answer to the age-old question... which is more

ridiculous, two laps of a 750km or three laps of a 500km?"

The question is perhaps more about the "why" than the "how", though the two things do get intertwined. With improving conditions and plenty of daylight "it would have been rude not to".

The BGA Ladder has had a lot to answer for. It's a shop-window for showing what's possible; it also provides a leader-board for the friendly rivalry between Portmoak and Aboyne in the annual chase for the fastest 500km. But a new phenomenon is the combination of live flight tracking and social media (eg Scottish Wave Hunters on Facebook). I'm amazed at how much interest there was.

If this is a way for more people to get even a hint of the things that pilots are privileged to experience, it may in some way transform the way people understand our sport, and the wonders of the atmosphere that clads our planet. That can only be good, and may even encourage yet more nutters to test new "boundaries".



Santiago Cervantes began gliding at 16. He now flies from Portmoak. A retired airline pilot, Santiago has all three Diamonds and a BI. He has 2,600 hours gliding and 22,000 hours power

**FINALLY THERE IS SOMEONE CAPABLE OF KNOWING THE ANSWER TO THE AGE-OLD QUESTION... WHICH IS MORE RIDICULOUS, TWO LAPS OF A 750KM OR THREE LAPS OF A 500KM?**



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, 3,300+hrs, a BI rating and a 2,000km diploma

# WHAT IS FUTURE OF OPEN CLASS?

Some of the world's leading authorities on glider design gathered in Benalla, Australia, for the 33rd OSTIV Congress and 2017 WGC, reports Murray Stimson

**T**HE exciting future of Open Class could see gliders achieving 100:1 glide angle at airspeeds near 150kts, according to some of the world's leading authorities on glider design. Gathered in Benalla, Australia, for the 33rd OSTIV Congress and the World Gliding Championships 2017, these designers and manufacturers were giving a sneak preview of some of their dreams and goals under active research and development.

OSTIV is the Scientific and Technical Organisation for Soaring, dedicated to advancing the art and science of the sport by sharing knowledge as freely as possible. Open Class, only restricted by a mass limit of 850kg, is the class where the most advanced concepts are first tested in the cauldron of

competition. Balancing against these dreams is the practical reality that all manufacturers need to build, certify and sell enough aircraft to get a return on investment.

Five of the leading figures in sailplane design and manufacture participated in a panel Q&A session with the moderators and then the audience. Rolf Radespiel (President of OSTIV and Professor of Fluid Mechanics at Braunschweig, Germany) and Mark Maughmer (Professor of Aerospace Engineering at Penn State University, PA, USA) moderated the session.

The great tradition of Open Class at Alexander Schleicher was represented by Gerhard Waibel, famous designer starting with the D-36 in 1962, continuing through to his recent collaboration with Dick Butler on the Concordia glider in 2014. Renowned CEOs of Schempp-Hirth company, Tilo Holighaus, and for Jonkers Sailplanes, Uys Jonkers, both gave their views quite freely. Oliver Binder represented Walter Binder, Flugzeugbau having brought two examples of the new EB-29R Open Class gliders to the WGC 2017 for the German team. Not least, Loek Boermans, aerodynamics researcher at TU Delft, Netherlands, has had a major role in the aerodynamic design of many gliders across several different manufacturers (including Concordia) and won the prestigious FAI Lillienthal Medal in 2015 after 19 years as the president of OSTIV. There could hardly be a better qualified or more experienced panel on this topic.

Limitations and technical compromises abound in Open Class, even when there are few regulatory limits. Certification to the crashworthiness requirements of a 9g impact is already a limiting factor and there were comments by a number of panelists that the mass of 850kg should not be raised further, as crashworthiness would otherwise be compromised. Aeroelastic tailoring has, for many years, held the promise of controlling the nose-down twist of the outer sections of a slender wing at high speed. That control may not be far in our future judging by

## Black Mountains Gliding Club

The premier UK site for soaring

- ▶ Bookings now being taken for individual visitors, small groups or expeditions for March through until end of October 2017. Please contact the office
- ▶ Develop new flying skills at BMGC
- ▶ Open daily from mid March until late October
- ▶ Over 100km of local ridges - think ridge, think wave, think thermals
- ▶ Airspace - we have loads of room
- ▶ Located in the National Park - so the scenery is breathtaking
- ▶ So, bag a badge, height - duration - distance



Please contact us at: [enquiries@blackmountainsgliding.co.uk](mailto:enquiries@blackmountainsgliding.co.uk)

Tel: 01874 711463 (weekday mornings) [www.blackmountainsgliding.co.uk](http://www.blackmountainsgliding.co.uk)



research now under way, resulting in lower drag at high speed. Flutter margin is another limitation that practically limits the span and aspect ratio, particularly for Open Class gliders. But the strength of the carbon fibres themselves was described as a key design parameter that might soon be addressed by new fibres in development for the wider aerospace industry. The key benefits of new fibres would be to allow even thinner wing profiles and lighter wing panels for easier rigging!

But for the holy grail of drag reduction and the 100:1 glide angle, Loek Boermans and Gerhard Waibel are firmly convinced laminar flow control via suction is the key by reducing profile drag at higher speeds by as much as a third to a half. "With a drag polar so flat across the speed range, there would be no point flying between thermals slower than maximum permissible speed" concluded Gerhard Waibel.

Wind-tunnel models are almost ready to study the effects of ingesting the near-wall boundary layer inside the wing through fine holes and then exhausting it rearward, providing a significant drag reduction. Whilst net thrust by blowing is now technically outside the regulations, there's nothing to say such gliders could not form their own class in future, "blowing away" the competition with astonishing performance.

Keeping the sport a pure expression of gliding pleasure could see some proposed developments not included on Open Class gliders. Some gliders in the class already sport self-launching piston engines in the fuselage behind the cockpit. But the current developments for Front-Electric Sustainer (FES) or even mid-fuselage electric motors is unlikely to reach Open Class anytime soon, according to some panelists. Current endurance for battery power is insufficient to compete with combustion engines, and the power insufficient to drag a heavy glider aloft.

All of the motor options were seen to take away from the intent of Open Class: to maximise the gliding performance across the whole soaring day with the longest tasks possible. As Gerhard Waibel said: "We must remember that adding an engine amputates the light weight end of the aircraft performance envelope and electric propulsion even more as the current batteries are the highest weight propulsion solution."

The panelists agreed that future Open Class competitions should exploit the



unique features of these superb sailplanes by sending the competitors out early in the day for as large tasks as possible, thereby eliminating tactics games and gaggles before the start line.

Major advances and substantial investments will still continue to drive performance ever upwards. Loek Boermans was happy to share for the first time in public that he is collaborating on a new Open Class sailplane. The new design will be heavier, fly by wire, and with a spanwise scheduled flap system that will be continuously and automatically moving. Wing loading will go up and it will use autoclave-cured structure. We can only dream of the soaring distances and speeds possible with one of these new Open Class super ships.

The 'Future of the Open Class' panel (left to right): Mark Maughmer, Tilo Holighaus, Uys Jonker, Gerhard Waibel, Loek Boermans and Oliver Binder, with Rolf Radespiel as moderator

## LAMINAR FLOW CONTROL VIA SUCTION IS THE KEY TO THE HOLY GRAIL OF DRAG REDUCTION AND THE 100:1 GLIDE

### GLIDER/AIRCRAFT INSURANCE?

Contact:  
**Tony Fidler**

Glider pilot for 35+ years  
40+ years insurance  
experience

**ANTHONY FIDLER & CO**  
**INSURANCE CONSULTANTS**

27 High Street, Long Sutton  
Spalding, Lincs PE12 9DB

Tel: 01406 362462

Fax: 01406 362124

E-mail: [robin\\_fidler@yahoo.co.uk](mailto:robin_fidler@yahoo.co.uk)

*Authorised and regulated by the  
Financial Conduct Authority*

### Oxfordshire Sportflying The Premier Motor Gliding School

- Courses by the hour for NPPL, SLMG & TMG PPL. Ground school available.
- Bronze C Cross County & Field Landing Checks.
- Convert your BGA Licence to an NPPL SLMG.
- RT/AGCS Examination Centre.



[www.enstoneaerodrome.co.uk](http://www.enstoneaerodrome.co.uk)  
Telephone 01608 677208



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





*This page, clockwise from top:*  
Black Mountains Gliding Club enjoyed spring wave on 25 March, a day with recorded heights of 12,000ft (Alan Cridge)

Wave days at Feshie (Peter Smith)

*Facing page, clockwise from top left:*  
Duo Discus 494's first landing since being refinished. Taken during Midland GC's March expedition to Llanbedr, Snowdonia. Flown by Nigel Lassiter and Alan Swan (Mark Williams)

Jon Hall in his Duo Discus Turbo KA climbing into east wind lee wave at Llanbedr during the Midland GC expedition. The grin is a bit of a giveaway as to how much fun they were having (photo by P2 Alex Rowlands)

Stunning view of fields in East Anglia during an April flight from Dunstable (Steve Lynn)

K-21 ERH just before the last flight from Burn on 18 February (Alastair Mackenzie)





David Innes reflects on the impact of a EuroFOX at Deeside Gliding Club after the first six months



Still life in the old girl! An exuberant start of descent by last year's tuggy, Isty (Istvan Junior)

**D**EESIDE Gliding Club has been operating its EuroFOX, G-CIKH, for six months now and in my opinion it has revolutionised the club's operation. Fox aerotows at Aboyne are now £22 to 2,000ft vs £30 for the Pawnee, utilisation is up, and our fuel consumption has been very substantially reduced.

We used to plan for one gallon of UL91 per thousand feet, now it is nearer one litre/1,000ft. I did 39,000ft of aerotows on one fuel load last September – the day when all those Diamond climbs were being made (see *A wave week to remember*, pp12-15, Feb/March 17). I only refuelled because I did not believe the float gauges, but in fact they were right. Normally, 20,000ft is our limit with a Pawnee from full tanks, so that is typically 10 tows before refuelling. Now it is most, if not all, of the day before hitting the pumps.

It starts every time, the biggest issue for me being just when to close the choke after the first start: no more endless cranking and re-priming of the Pawnee to the exhaustion of the batteries under some conditions. I have even used my car to

jump start a Pawnee.

Launching is straightforward, the rear view mirror is the best I have experienced; no significant vibration, so a clear picture at all times. Crosswind limits are slightly lower than the Pawnee, but with the wind down the strip it's equal. The extra kick of the turbo helps, and even the Capstan resting on its metal nose skid is not a problem, but that is off a Tarmac strip. We throttle back at about 200ft AGL, to the max continuous setting, well within the engine's five-minute rating. Launching heavier two-seaters in rough conditions can be interesting, and Deeside will keep at least one Pawnee just in case. The minor niggle of having to control oil temperature manually has been overcome on our tug by fitting an oil thermostat.

Off tow, depending on distance from the field, you can cruise-descend home, and if close you can close the throttle completely, 90kts/3,000rpm and sink like a stone; no need to orbit burning height with power on while preventing shock cooling in an air-cooled engine. Unless we are dropping people in wave, we will normally stay local,

and many times I have gone from 2,000ft straight onto downwind, or occasionally directly to base leg, slowing to flaps limiting speed before finals. What the Fox loses in climb rate, it makes up for in descent rate, so the overall cycle times are similar to the Pawnee. It is also much quieter than our four-bladed prop Pawnee.

Once, when both runways were blocked at the far end, I had to try landing short on a polished (by 20 launches) icy runway, in nil wind, which did make stopping a challenge. I steered off slightly onto the grass, covered in a few inches of snow, just to be sure of stopping. It then took an amazing amount of power to get moving again.

Life is not all rosy with the EuroFOX, but the negatives so far are, in my opinion, relatively minor.

- Learning to aerotow from behind in any turbulence is harder for the pupil, since the Fox responds to gusts far more than the glider, and it is sometimes difficult to know initially if the tug is intending to turn or just being bounced around. The prop wash is much less intense and a lot closer to the normal high tow position; it's easy to descend slightly and catch the top of the wake. Tow speeds between 60-65kts are indicated, so bank angles have to be reduced when towing since the turn rate is higher at lower speeds. The tuggy does have to concentrate on holding attitude in an initial climb, since the Fox will tend to soar when climbing through a strong wind gradient, leaving the glider behind.

- It is a bit more tiring for the tug pilot than the Pawnee in turbulence, due to its low wing loading and liveliness in roll, requiring frequent correction. Handling is good (far better, I am assured than its Kitfox predecessor), especially in roll, so control authority, touch wood, has never been an issue.

The rudder does need to be used frequently to keep the rather over-active slip ball close to centre, and the nose can easily be pulled around by an out of position glider, but it does not build up your calf muscles like Mr Piper's product.

Similarly, you definitely notice a glider shifting from high tow to low tow and, if the glider is staying there, it's best to re-trim to avoid Popeye's arm syndrome. There is not quite enough back trim with full flap, but the forces to be held for a short time are not excessive.

So far when it has been too rough for the EuroFOX, we have only occasionally reverted

to the Pawnee.

- Downwind take-offs are not advisable.
- It does not drop out of the sky like the Pawnee when you set the throttle to idle, so having enough height to clear the trailing rope over the fence while stopping on our shortish runway (500m) is a challenge in nil wind. Leaving just a whiff of power on encourages a long float. Maybe the retractable tow cable option would have been better, on reflection.

- We had some initial problems with engine calibration: specifically manifold pressure that turned out to be because a relative (rather than absolute) MP gauge had been incorrectly fitted at the factory. Ours was the first turbo, tricycle gear, EuroFOX in the UK, I believe. The brakes could be beefier – we wore out a set of pads and discs fairly quickly. Pawnee drivers were steering with brakes, in spite of the nose wheel steering working well, and standing on the brakes like they were used to. You do need to really push the brake pedal tips during power checks. The brake disks have since been upgraded.

- Returned surplus fuel from the engine pumps goes only to the left tank, so it can overflow if idling just after refuelling, or if parked on sloping terrain. We now only fill to  $\frac{3}{4}$  tank and, over the winter months, do not need to refuel each day.

- I am out of practice on the Pawnee!

- Finally, and this is specific to KH, our aircraft has a beautiful deep blue finish, absolutely immaculate even after the first six months of being our de-facto primary tug. However, the small size of the airframe and the shade of blue does not show up well against some backgrounds. Indeed, I have at times looked down from above and all I can see is a glider looking very low, far from the field. I only eventually figure out it is on tow and have been caught out several times with that.

We fly KH, therefore, with all lights and strobes ON. We also have FLARM fitted to KH and this is also being fitted to the club fleet, for electronic conspicuity.

Overall, a great little aircraft, which is fun to fly, and will continue to revolutionise our club finances. Next tug, same again please, but this time in red.

To quote our tugmaster: "It does what it says on the tin and, in this time of increasing costs, the EuroFOX is the future."

## **OVERALL, A GREAT LITTLE AIRCRAFT, WHICH IS FUN TO FLY, AND WILL CONTINUE TO REVOLUTIONISE OUR CLUB FINANCES**



Deeside's EuroFOX has a beautiful deep blue finish, which can make it difficult to spot against some backgrounds. It flies with all lights and strobes on and with FLARM fitted

■ [www.eurofoxuk.co.uk](http://www.eurofoxuk.co.uk)

■ These observations are those of the author and are not Deeside Gliding Club policy



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

# A FLIGHT THAT KEPT ON GIVING

Mark Lawrence-Jones reflects on a Diamond flight that, among other accolades, won him the BGA's Rex Pilcher trophy

**A**FTER I landed back at the winch queue for the second time, the duty instructor asked: "Are you having a bad day?" Well, yes, I was. After a prolonged period of soggy weather, at last a day with a good gliding forecast had arrived. While it wasn't quite as good as we had hoped, since it was expected to go blue in places later, we were nevertheless promised good climbs until late in the afternoon. About 10 pilots at Gransden Lodge had declared tasks of around 500km; the CFI, not to be outdone, had declared a 600km.

Now that it was early August, with the days already getting noticeably shorter, this felt like the last chance that summer

to get Diamond distance – an ambition that had been fading as the season had worn on without suitable conditions. I had managed 440km in the club's Pegase the previous year, but today I was in the club's better-performing ASW 24W. For once, I had decided not to go with a task of my own, but to join some fellow members on a nice FAI triangle: downwind to Framlingham, north west across East Anglia to Tuxford Junction, south to Bicester Control Tower and back home with the wind. More ambitious than flying a yo-yo task up and down the wind, but more fun to go with the gang and a better sense of achievement if I got round. In for a penny!

Now, as I sat at the winch launch point, I imagined the fleet already halfway to the first turn. Where had it all gone wrong? As I fly the club's aircraft, my moving map navigation is a stand-alone system running XCSOar. This has successfully navigated me round many tasks, as well as to many landout airfields, since my first cross-country season in 2013. But today it kept losing the GPS signal. So having been one of the first to get an aerotow launch, I had just landed back for the second time to try to resolve the issue.

The one good thing about every rigged glider having been launched was that there was no queue at all, and it was unnecessary even to get out of the cockpit. But the ignominy of calling downwind twice on a stonking day! Everything seemed in order on the ground... time to try again. Once airborne for the third time, it became apparent that the signal would sporadically drop while turning, but would be likely to remain reliable while cruising. I would just have to be careful about exiting climbs on the right heading. This would have to do and, of course, I did also have a paper map – it was now or never.

The morning run to Framlingham is often a delight, with good, closely-spaced climbs, a rising cloudbase and downwind streeting – the sort of flying where anything seems possible. The good conditions over

## ZULU GLASSTEK LTD

ZULU GLASSTEK SOLE UK AGENT TO ALEXANDER SCHLEICHER SAILPLANES  
14 VARIANTS OF PURE, SUSTAINER AND SELF LAUNCHING SAILPLANES

New variant ASG29/18es proving extremely popular  
with the early birds!



Photo credit: Tobias Barth Photographie

### SALES, REPAIRS AND MAINTENANCE CONTACT:

Zulu Glasstek Ltd...Peter & Sally Wells, Baileys Farm, Westfield Road, Long Crendon, Bucks HP18 9EN  
Tel: Pete/Workshop 01844 208157 - Office/Fax 01844 201028 -  
email: zuluglasstek@clara.net - Parts Office Hours Mon, Tues, Thurs & Fri 9.30am-12.30pm  
www.zuluglasstek.co.uk - www.twister.airshows.org.uk

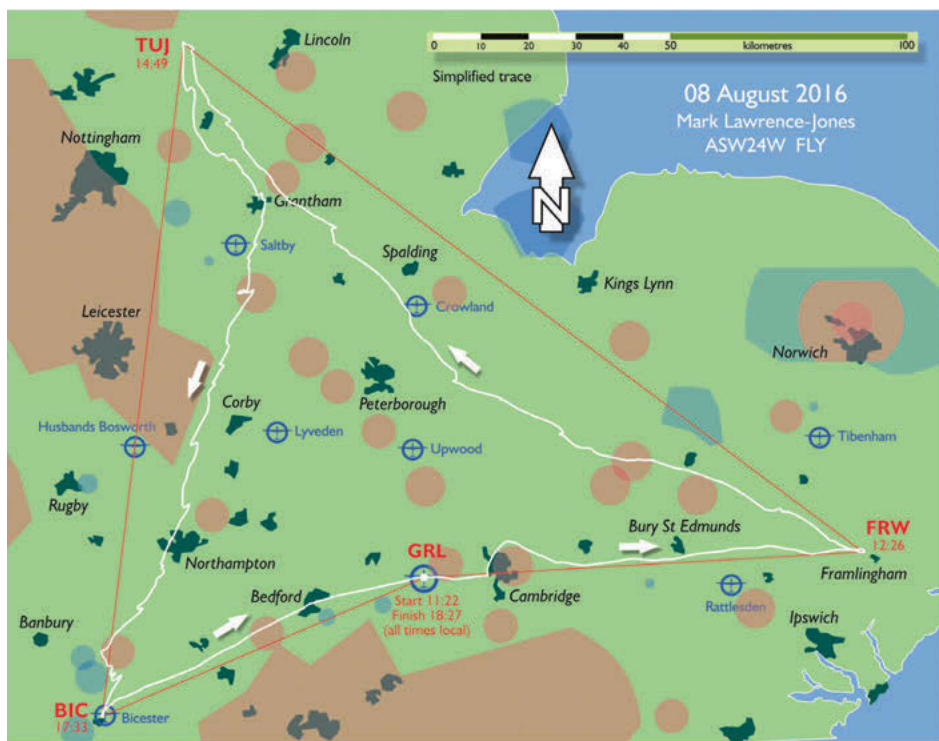
the airfield gave me confidence as I radioed Cambridge Airport in line with our LOA. Surely now it would be a simple matter of catching the next cumulus, climbing then cruising over the edge of the ATZ? But no, the clouds did not deliver so I had to divert off-track to look for other climbs and avoid dropping into the ATZ uninvited. While this did not improve the mood in the cockpit, it was still relatively early days, though midday was by now fast approaching.

Finally, after limping around the north of the city under gradually improving clouds, a good climb at Newmarket heralded the start of a decent run. Now that I was clear of Cambridge, I could turn the radio back to a gliding frequency, and soon heard pilots rounding the first turn. An enquiry about the conditions there got a positive response, so I pushed on, trying to use the energy lines for as long as possible – a skill which I am just beginning to learn.

By the time I rounded the first turn, the weather was very good indeed. There were long lines of lift to follow, interspersed with sharply-defined, strong climbs that were easy to cleanly enter, centre, climb and exit. I felt that a performance two-seater below me on the same course must surely be one of 'ours' and the competition gave me added impetus. I allowed the lift to take me somewhat off track, partly because it was probably quickest overall, partly because it wasn't a huge angle, partly because it was towards the upwind side of the course and partly because I was having a blast. It also took me away from The Wash, which I have a healthy suspicion of, even when it is supposedly downwind. If this weather continued, perhaps I would be in with a chance.

I began to see more aircraft as I approached Tuxford. By now I was spending more time climbing, but still making good progress. Radio chatter suggested that at least some pilots were not far away, so I hoped that I had made up some lost time. However, after the turn, there came an unwelcome change: the clouds were becoming rapidly sparser, and indeed it was looking pretty blue to the west. At first I chased after the remaining cumulus; I suspect in retrospect that that may have cost some time as it took me considerably off track on the downwind side. The only good thing about the diversion was that it aligned the track to Bicester slightly more with the headwind.

Now, as I looked for blue thermals, I tried to remember what I had learned in the Aim Higher course the previous summer.



Looking for ground features that might trigger thermals was going to be key now; one promising possibility was the cold air over the lakes en route. In fact, over Pitsford there was about the best climb on the leg which took me to the highest point of the flight. But overall, the climbs got weaker and weaker, and it became more and more of a struggle against the wind. I decided to push on – at least the next turnpoint was an airfield. Better to land there than to give up. Shortly after formulating that thought, I found myself below 2,000ft with the glide angle to Bicester now very flat indeed. Perhaps I would be unable to make it even that far. After a lot of further circling in two weak thermals I gained enough height to make the airfield and set off on what might be a final glide.

I peered down as I approached the turnpoint. It was 5:30 pm. Were they still launching? It was hard to tell, but, as I was below winch launch height, the decent thing to do was to fly round the airfield. Instead, I flew over some houses, and felt a slight surge. Lift! As I was close to the turnpoint, I decided to press on there first, then backtrack. A risk certainly, but at least I was taking the upwind turnpoint low, and I could not afford to waste time.

Back over the houses, could I find any useful lift? A couple of anxious searching turns got me centred and, to my surprise, after a further 10 minutes I was back to

Mark Lawrence-Jones' flight from Gransden Lodge on 8 August was the earliest Diamond distance in the UK for 2016 (Illustration by Steve Longland)

**NOW, AS I LOOKED FOR BLUE THERMALS, I TRIED TO REMEMBER WHAT I HAD LEARNED IN THE AIM HIGHER COURSE THE PREVIOUS SUMMER. LOOKING FOR GROUND FEATURES THAT MIGHT TRIGGER THERMALS WAS GOING TO BE KEY NOW**



Proud sponsors  
of the British Junior  
Gliding Team



**Aim for higher cover  
and lower premiums**

**Excellent  
cover at  
great  
prices**

Comprehensive  
Gliding Hull and  
Liability Insurance

+44 (0)1420 88664  
info@sydneycharles.co.uk  
www.sydneycharles.co.uk

**SC**  
**SYDNEY CHARLES**  
AVIATION INSURANCE BROKERS

Sydney Charles Aviation Insurance Brokers is a trading name of Sydney Charles UK LLP Sydney Charles UK LLP is authorised and regulated by the Financial Conduct Authority. FCA Firm Reference No. 471046. Sydney Charles UK LLP is a Limited Liability Partnership registered in England and Wales Registration No.: OC320079 Registered Office: 7 Old Aylesfield Buildings, Froyle Road, Alton, Hampshire, GU34 4BY.

## PHILIP WILLS MEMORIAL FUND SUPPORTING GLIDING IN THE UK



The Philip Wills Memorial Fund has a long and successful record of supporting gliding clubs in the UK. This has been achieved principally by making loans to clubs, at very good rates and with minimal paperwork, for projects such as site purchase, the acquisition of gliders, tugs and winches, and improvement of infrastructure.

Currently the Fund has more than £330,000 out on loan, working for the improvement of gliding, and more applications are in the pipeline.

The trustees are very keen to further develop the activities of the Fund. To achieve this aim, we will need to increase the size of the fund over the coming years.

If you feel that this is a worthwhile initiative and that you would like to give back something to the sport which has provided us with such challenge and pleasure over the years, then please consider leaving a legacy to the Philip Wills Memorial Fund (c/o the BGA) in your will. However large or small, you can be assured that the trustees will put all such gifts to good use to the continuing benefit of the gliding community in the UK.

Thank you.

In conjunction with the







Mark Lawrence-Jones (right) receives the Rex Pilcher trophy in February 2017 from Patrick Naegeli (Paul Morrison)



Mark's flight was in Cambridge GC's ASW 24, seen here ready to set off on another adventure from Gransden Lodge

around 3,500ft. A smudgy horizon at this level suggested that this was likely to be the limit. At last the wind was behind me, almost exactly on course, and while climbing I had already been blown 4km towards home. I was glad that I had already turned the last turnpoint, and hoped that the blue conditions might at least extend the soaring day.

This was not a time for heroics. Much has been written and debated about MacCready theory, but the key points for the purposes at hand seemed fairly simple (wave-flying Scots: this may be different to what you are used to):

- When the anticipated climbs are weak, fly slowly.
- When the wind is behind you, fly even slower.

So I flew very conservatively indeed, guarding my hard-won height and gently trying to feel the air for lines of lift. If I could just stay airborne, even slow cruising with the wind should soon bring me within range of home.

I hoped that the towns cooking in the late afternoon sun along the way would be releasing enough heat to generate the last thermals of the day to carry me home. On track were Milton Keynes and Bedford, and they both delivered weak but definite climbs, with a climb or two between. Despite the cautious, take-any-climb-going flying, the ground slipped past easily and at Bedford I was just about on final glide. However, I was concerned that a bout of sink could quickly take away the margin; another few turns on the way would make it more comfortable.

As I set off on a tentative final glide, I focused on flying as accurately as possible

with the right course and speed. I did not want to find myself lingering in sink, or missing a final climb. But in fact there was little up or down until a slight boost near the end gave me a comfortable arrival height to burn off in a joyful finish. After an eventful flight, I had made it. Not such a bad day after all...

On the ground, I found that only the DCFI had completed the same declared task. Most other pilots had sensibly called it a day north of Bicester and made for home while they could still get back. Some had had a final turning point south of Bicester, which would have been very difficult to achieve.

For me, this was a flight that kept on giving. First it qualified for Diamond distance. Then it won the club trophy for the longest handicapped flight in the season and, finally, it won the BGA Rex Pilcher trophy for the earliest UK Diamond Distance in the year – the August date surely an indication of the season's damp start.



Mark Lawrence-Jones' first gliding experience was at Edinburgh University Gliding Club, but he did not solo until 2012 following a Fathers' Day gift flight which inspired him to join Cambridge Gliding Club. He says that he has been 'trying to make up for the lost years' ever since. Mark enjoys flying the club's single-seater fleet of a Discus, Pegase and ASW 24W. He has a BI rating and all three Diamonds

**LJ Panels**

+44 (0) 7966 426105  
alan@ljpanels.co.uk  
www.ljpanels.co.uk



## Lucy Wootton reports on the 2016/7 Winter Series, with an account from Henry Inigo-Jones on his Silver distance

**T**HE first weekend in April saw the final round of the 2016/7 Junior Winter Series, now in its sixth year. The Winter Series promotes gliding to young people throughout the UK and is organised by UK Junior Gliding. It is an excellent opportunity for juniors across the country to get to know each other, encourage one another and experience flying at different sites in varying conditions. This year, the juniors visited Portmoak in October, the Long Mynd in February and finally Bristol & Gloucestershire Gliding Club at Nympsfield in April.

### **Round 1: Scottish Gliding Centre, Portmoak (28-30 October 2016)**

Despite being a trek for many juniors, the turnout for Round 1 at Portmoak was fantastic. Many towed trailers for hundreds of miles, others flew to Edinburgh and one junior took the train with his bike all the way from Dunstable and then cycled to the airfield for little more than a day and a half of flying! But it was worth it. Some intrepid souls even decided to camp. It was also great to meet some of our counterparts from Scotland who do not always make it to the more southern rounds.

Friday was a particularly good ridge day, with the wind right on the Bishop, which made for some excellent ridge soaring, as well as photo opportunities for the several budding photographers now part of the 'Juniors'.

Saturday was a less promising day. A couple of the two-seaters managed a little ridge soaring before the fog closed in, but everyone else took advantage of a brief on wave soaring from Santiago Cervantes in the clubhouse.

Sunday came with the promise of wave and ridge soaring, so a couple of single-seaters, as well as Dan Welch with the Arcus, got up very early to make the most of it. The aerotows woke some people sleeping in the clubhouse! Although it was not the fantastic ridge day we had hoped for, it was still enough for many pilots to get in some decent soaring before the long drive home.

### **Round 2: Midland Gliding Club, the Long Mynd (3-5 February 2017)**

The Mynd was the most well attended of all three rounds. How we quite managed to all fit in the clubhouse

# WINT



for a three-course meal still amazes me!

On the Saturday, we were up, rigging and doing the daily inspections on the kit at dawn, to make the most of the flying day. By the end of a short February day, we had managed a record-breaking 113 launches. With everyone getting stuck in and helping to get the gliders on line, it is amazing what can be achieved.

The Saturday evening was probably one of the most memorable for Junior Gliding. Firstly, it was Emily Tillett's birthday; a cause for celebration with champagne and cake. Secondly, Poz had made the mistake of creating a poll on Facebook to choose possible fancy dress for party night, to which one of the juniors added the theme 'Steve Pozerskis'. Little did Poz know that Matt Page and Chris Wilson would take this so seriously and get 80 printed cut outs of Poz's face, with three different facial expressions. Poz was ushered out of the room while everyone donned their masks. On his return, his face was a mixture of surprise and terror as he was confronted with a room full of Poz lookalikes. Needless to say, Poz masks were hidden behind photos, in the roof, in the clothing display cabinet and on the headrests of many of the gliders in the hangar for unsuspecting Mynd pilots to find in the future...

On Sunday, the weather was not good enough to fly, but there was plenty of time for the annual Mynd walk.

### **Round 3: Bristol & Gloucestershire Gliding Club, Nympsfield (31 March - 2 April 2017)**

Although a few people arrived early, flying started properly on Friday, with many two-seaters and single-seaters making the most of the good weather to get check flights out of the way and some decent soaring.

Several two-seaters took an aerotow and flew to Aston Down for a 'Jolly Nice Burger' at the café near the airfield and then got an aerotow back. It has to be the most expensive burger they have ever bought!

By Friday evening, most people had arrived and the bar was full. Ben (Hughes) FM provided the music as usual. Entertainments included doing the Bruggen Roll (climbing around a table without touching the floor) and some interesting dancing to Aerosmith.

Saturday brought with it a mixed forecast – showers early in the day, with the possibility of some soaring later. Andy Davis set two cross-country tasks: one of 60km and another of 130km. Fortunately, after a morning of showers, they cleared leaving a beautiful, soarable afternoon. The two-seaters were kept busy with check rides and making sure everyone on the two-page long, two- ☺

Above: A 50-glider grid at Winter Series R3 (Matt Davis)

Facing page: Matt Davis flying with juniors Tom Hogarth and Finn Sleight, plus ex-juniors Steve Pozerskis and James Ewence during Winter Series R3 at Nympsfield

**BY THE END OF A SHORT FEBRUARY DAY, WE HAD MANAGED A RECORD-BREAKING 113 LAUNCHES. WITH EVERYONE GETTING STUCK IN AND HELPING TO GET THE GLIDERS ON LINE, IT IS AMAZING WHAT CAN BE ACHIEVED**

# WINTER SERIES



**PROVIDERS OF INSURANCE FOR GLIDERS,  
MOTORGLIDERS AND LIGHT AIRCRAFT SINCE 1991**



**PRIVATE GLIDER  
& MOTORGLIDER  
INSURANCE**



**PRIVATE &  
TUG AIRCRAFT  
INSURANCE**



**GLIDING & FLYING  
CLUB AIRCRAFT  
INSURANCE**



**HOT AIR  
BALLOON  
INSURANCE**

T: 01765 690777 • E: info@hillaviation.com  
Unit 1a, Sycamore Business Park, Copt Hewick, Ripon, HG4 5DF

[www.hillaviation.com](http://www.hillaviation.com)

**Twin Shark MS**  
20m Flapped Two-seater

*.....No need to dream anymore*

**Shark SJ**

-

**Shark eS**

-

**Shark MS**

[www.HpHUK.co.uk](http://www.HpHUK.co.uk)

**If you're serious  
about your flying...  
Please subscribe**

Subscription only £16 p.a.  
including UK postage and  
a digital version. Quarterly.

- Keep up with the latest developments towards greater safety
- Read about recent AirProxes, GA Occurrences and AAIB accident reports
- Follow the well informed commentary in our articles and letters
- Help us with our work at GASCO

Go to [www.gasco.org.uk](http://www.gasco.org.uk)  
or phone **01634 200203**  
Editor: Nigel Everett

✈️ seater list got to fly!

Sunday was the day we had all been waiting for and it is fair to say that it did not disappoint. There was a grid of 50 gliders before briefing. Three juniors completed their 50km flight towards their Silver Badge: Alex Fordham, Henry Inigo-Jones and Matt Johnston. Josh Milner completed his Silver duration too. A fantastic conclusion to the best Winter Series yet. Many juniors also completed cross-country flights of between 150km and 220km. For many it was their first cross-country flight this season and there were no land-outs!

A massive thank you to Portmoak, the Long Mynd and Nympsfield for hosting us, all the glider pilots who kindly brought along their two-seaters and coached, and the Junior Development Team for organising another fantastic series.

### **Henry Inigo-Jones tells us about his Silver distance flight from Nympsfield during the Winter Series**

My home gliding club is Lasham, but I was on an expedition organised by UK Junior Gliding to the Bristol & Gloucestershire Gliding Club. This was the third long weekend of the annual Winter Series, put together to try and keep junior pilots flying throughout the winter mostly through ridge and wave soaring although on this particular weekend we were lucky enough to have thermic conditions, enabling us to fly cross-country. UKJG had organised a number of high performance two-seaters, including three Arcuses, for us to have some two-seat training from more experienced pilots.

I have a half share in a DG-300, which I bought into in January having completed my Bronze C and cross-country endorsement. I had brought the glider to Nympsfield not expecting to fly any major distance, I really just wanted some more experience of launching and landing at a different site. When it was suggested to me the night before that I could attempt to fly the longest distance I had ever flown solo in a glider, I was pleasantly surprised and rather excited.

The next morning I woke up bright and early and rigged before the briefing at 9am. At this briefing I discussed my route with the CFI and it was decided that, with the conditions in mind, I would fly to Shenington and (hopefully) back again. This gave me the option to land out at Shenington if it became less thermic later in the day.



I was at the very back of the grid and one of the last to launch of those planning on going cross-country. I launched just before 1300hrs. This wasn't necessarily a bad thing, as being early April it took quite a while for it to become fully thermic.

On the way out, I found that I was making fairly slow progress, taking almost every climb, however weak. I think this is fairly typical for a first Silver distance flight. I got to Shenington without any major issues. I knew I was staying fairly accurately on task and was pleased when I flew over Moreton-in-Marsh as I knew this meant that I was close to my turning point.

When I got to Shenington, I struggled a bit to climb away from about 1,400ft above ground level as I went around the turn point, but caught a brisk 3.5kt climb up to cloudbase ready for my returning leg. By this point I was about 90 minutes into the flight, and had got used to the speeds at which to fly, the sort of strength climbs to be taking and when to leave ones that I was already in. This resulted in a much faster leg home for me, taking nearly half the time of the trip out. As I neared Nympsfield, the clubhouse came into sight and I was filled with a huge sense of achievement.

I have to say it is definitely up there with one of the best flights I have ever had in a glider, and it probably would never have happened so soon had it not been for the Winter Series getting me up and flying!

Late evening soaring over Portmoak at Winter Series Round 1 (Alex McCaw)

**IT IS DEFINITELY UP THERE WITH ONE OF THE BEST FLIGHTS I HAVE EVER HAD IN A GLIDER, AND IT PROBABLY WOULD NEVER HAVE HAPPENED SO SOON HAD IT NOT BEEN FOR THE WINTER SERIES GETTING ME UP AND FLYING**

### **JUNIOR NATIONALS**

We are pleased to announce that the Junior Nationals will be held at Nympsfield from 19-27 August. To be directed by Steve Jones, this is sure to be an amazing competition that you won't want to miss! Check out the UK Junior Gliding Facebook page for more information.

# TWIN VOYAGER

# S12



Stemme's S10 and S12 pictured in flight from Lasham (Paul Haliday)



## Guy Westgate was delighted to take up an offer to fly Stemme's two-seater S12

**T**HE new Stemme S12 will be in the UK in October, would you like to fly it? How I just love receiving emails like that! This one had been sent by Chris Dawes of Stemme UK. Chris is one of those amazing pilots who has done just about everything, and is rather good at just about everything he has done! I first met Chris through my links with the disabled flying charity Aerobility, as Chris has championed disabled paragliding and hang gliding for many years with his partner, the legendary pilot Judy Leden.

Chris also flies gliders and took over the Stemme UK agency with Henrik Burkal a couple of years ago.

I first flew an S10 with Tug Wilson in Spain in 1993 and, much more recently, I was lucky enough to display the latest Stemme S10-VT at Sywell for the 2015 AeroExpo.

Once in the air, I was very impressed with the S10 handling. The type has been around since 1984 and seen a few improvements, but the new S12 is Stemme's first opportunity ↗



Above: Auto pilot, electric gear and trim are new features (Guy Westgate)

Main pic: The S12 has a best glide of 53:1 (Paul Haliday)



Dave Pilkington (left) and Chris Dawes in front of S10 and S12 (Guy Westgate)





to make big changes... so what is different? How do you make the world's best side-by-side two-seat glider even better?

The S10 has always been a challenge on the ground, with the wingspan of a passenger jet on a shopping trolley undercarriage, so I was very pleased to see that the new undercarriage has grown 20cm wider. I didn't get a chance to taxi the S12 over rough ground, but the wider track has to help!

The other big changes are the wing (bigger with new profile), autopilot (yep, it has an autopilot), electrics (electric gear and trim) and storage space (lots more!)...

The very clever handle to extend/retract the nose cone still covers the engine controls when in soaring mode, so it is impossible to start the engine inadvertently with the props stowed in 'soaring' mode.

The handling felt very similar to the S10-VT, with a larger flap range and full span flapperons, the monster 25m wing gives a best glide of 53:1!

The S12 keeps the ability to fold the

wing outer panels, and dock them onto the fuselage, reducing the 25m span down to 11.4m, for easy hangar packing.

It's still a little tricky to get in and out, but, once sitting in the bucket seat, the view through the huge bubble canopy makes it all worthwhile.

Oddly, despite the beautiful lines throughout the aircraft, the winglets end with an oversized light cluster that looks like an afterthought and gives the Stemme the prize for the ugliest winglets I have ever seen – but that is really the only negative I can think to comment on.

Chris brought his demonstrator S10 to Lasham for the photo flight to join the S12 from Austria, which I flew with Markus Lewandowski of Mountain Soaring.

Close formation was a little tricky in the rough conditions until I got used to the roll and pitch inertia and throttle. I chose to keep the propeller in fine pitch for the photos, to improve throttle response and propeller drag when I needed it, and to give some prop blur on Paul Haliday's photos.

The S12 features a bigger wing with new profile (Guy Westgate)

■ [www.stemme.com](http://www.stemme.com)



■ Guy Westgate is well known for his aerobatics in gliders, but recently renewed his interest in motor gliders with his Grob109b display team AeroSPARX. This report has a bit of everything: flying beautiful gliders, challenging formation flying and air-to-air photography

# AN INSPIRATION IN THE MAKING

Richard Blackmore recalls his role in a TV documentary that attracted many to gliding



Photographs taken from *Riding The Summer Sun*, with Richard Blackmore in the starring role as pilot, courtesy of BBC Television

**A**T THE time the film was made, I lived in Yorkshire, was fanatically keen on gliding and flew at Sutton Bank. I was an Assistant Category instructor there, and had just written an article for the club magazine *Horse's Mouth* about a 300km attempt I had made in July 1979. When YGC club member Keith Massey asked if I would be interested in taking part in a 10-minute film the BBC was allowing him to make about his hobby, I jumped at the chance.

The plan was for Keith, a cameraman and news reporter, to make the film in spare moments when the BBC didn't have any other work for him. He was assisted by a colleague, who did technical and sound work. He wanted the film to get over to viewers the excitement and romance that he felt in gliding. The film would include footage of Judith Mountford doing her training and first solo, and of me attempting my first 500km flight.

We started filming in the autumn of 1979, which was convenient for me as I had just been made redundant from my job and had plenty of time on my hands. Keith and I thought through the scenes we would need to shoot

to make a good film, and planned how to get them. It rapidly became apparent that the 10-minute time frame would be inadequate, and I think Keith persuaded the BBC to let him make a 10-minute film on each of his two subjects. Over time, as footage was accumulated, it became apparent that the plan should be expanded to making two separate half-hour films.

The filming spread over two years and was finished in late autumn 1980. I can't be too sure of the dates, as my logbook was stolen during an Overseas Nationals in Poland. I can remember that it took a total of 54 flights to make the film, some made in summer, but some also made in winter – you can see some rather incongruous backgrounds if you look carefully.

Each scene needed several different flights due to the different camera angles needed. I made a wing mount to carry a 16mm Bolex camera on the port wing, and another mount to carry the Bolex behind my head in the cockpit, over the wing spar. We also used an ex-military gun camera that mounted in the instrument panel and could shoot just over a minute of film. The trouble was that we could only use one camera at a time, as otherwise they would 'see' each other. The cameras of those days made a lot of noise, so it was not possible to make flight sound recordings when





any camera was running: we had to make some extra flights just to record the soundtrack.

You can see several scenes where all the cameras were used, including I think the winch launch from Sutton Bank. We also filmed from the Motor Falke and the Piper Cub, with Mike Wood doing the flying.

Keith was absolutely determined to make the film of the 500km attempt as nearly true as possible, as he felt this would make it more realistic. We did a lot of filming on location on the route, either by trailering the Jantar to the location, or by aerotowing to the location, shooting the film, then landing in a nearby field.

For the scene about thermalling away over Didcot power station, we filmed in late autumn, working from a field owned by Ted Leigh, who rebuilt a couple of Tiger Moths. Ralph Jones came with his Robin tug, and Keith hired an Alouette helicopter from Booker. The chopper came with its own camera on a special mount, and Keith had to sit with his legs hanging out of the door while filming. Unfortunately the camera had jammed on wide-angle, so it was necessary for the chopper to fly incredibly close to me in the Jantar. The pilot was an American, who had flown Hueys in Vietnam. In our pre-flight discussion he told me that whatever manoeuvre I made, he would be able to manoeuvre more quickly and avoid contact – EXCEPT he wouldn't be able to out-climb me if I pulled up sharply while he was flying above.

One shot we needed was of the Jantar doing a pull-up as if I had sensed some lift, then push forward when I found it was no good. To do that, I flew straight and level and the chopper formed about six feet over my head. I knew I mustn't look up, but was aware of the front of the skids in my peripheral vision. The chopper then flew at exactly the same height to a point about

half a mile ahead of me and hovered. I had to dive to 100kts or so, then pull up aiming exactly at Keith and the camera – and keep going until I was at the point of stalling before pushing over. The theory was that I could never quite regain the height I started from, but it was a bit nerve-wracking hurtling up towards those whirling blades!

There were no thermals that day (in fact there was frost on the ground when we started filming) so Ralph towed me to the "top of the thermal" in wisps of cloud above the power station and I made tight "thermalling" turns while descending to very near the top of the cooling towers, from where I could just make it back to the field we were using. Clever editing made it appear that I was climbing away from the power station, complete with the appropriate variometer and wind noise sounds from a tape that we had made while I flew on the ridge at Sutton Bank.

Many viewers have commented that I am portrayed as flying above cloud as I fly away from Didcot. As it happens, that was absolutely right: on the real flight I got a really good climb over the power station, to cloudbase. As I flew northwards, I came over a front at a lower level, and actually descended through wispy cloud over many miles without finding a thermal. I think it was on that part of the flight that I was portrayed eating the horrid BBC canteen white bread cheese sandwich. Fortunately there was only one take of that bit!

Keith was adamant that we had to film the landing in the same field near Sheffield that I had landed in on the real flight. I went to see the farmer to ask his permission, but found that the field was full of big round bales. The farmer was delighted to get involved in the filming, and promised to have the bales removed by the time we arrived to film

Photographs taken from *Riding The Summer Sun* courtesy of BBC Television

### **THE FILM'S DIRECTOR, KEITH MASSEY, ADDS:**

**WHAT** a lovely time it was at Sutton Bank when I made the two films – the first, I believe, on gliding in the UK.

I had to use an American World War 2 gun camera, which used 50ft magazines that gave me 1.25 minutes of recording at a time.

These days they have wonderful little HD cameras that you can stick all over the place and run them for a couple of hours!

I can still remember the thrill of going into a thermal for the first time – actually for me it was at The Yorkshire Gliding Club in a T-21. Also reading the books by Philip Wills and Derek Piggott, still in my bookcase today.

A visit to the World Gliding Championships at South Cerney in 1965 was very memorable, including a report from Air Traffic Control radar that said there were 20-odd gliders in the same cloud!

The sport kept me out of mischief for nearly 50 years. Happy days.

■ Keith Massey is a founder member of the York Gliding Centre (it used to be the Ouse Gliding Club, named after the river) in the 1960s.

**ANDY BARDGETT,  
BORDERS GLIDING  
CLUB, COMMENTS:**

767 was, I understood, the first Std Jantar to be imported to Britain. Some time after the documentary was made Richard took up sailing, returning to gliding in 1989 flying an LS7, and later an ASH 25.

When he stopped gliding, 767 sat, unused, in its trailer at Sutton Bank for a couple of years. It was then sold and came to Milfield, where I bought a share which I had from 1986 until 1993. We sold the glider to Robert Tait and his father at Highland GC. (It is thought that 767 was refurbished two or three years ago, and sold to a Polish gliding club – Ed.)

I found *Riding the Summer Sun* quite inspiring, although my main inspiration when I started gliding was George Lee winning the World championship twice. Confession time, I even wrote to *Jim'll Fix It* to ask if he could 'fix it' for me to fly with George. I didn't get a reply (probably because I was in my 20s), which in hindsight perhaps wasn't a bad thing!

Photographs taken from *Riding The Summer Sun* courtesy of BBC Television

☞ two days later.

I was aerotowed from Doncaster Gliding Club by their tug and, to save towing time, released when my John Willie calculator said I had just enough height to make the field, which was a glide into wind. I knew exactly where Keith would be hidden behind a hedge with his camera, and I switched on the camera looking over my shoulder and settled into the glide. The field appeared over the horizon, and to my horror was still filled with big round bales: the farmer had not kept his promise. I was faced with a field selection for real, with very little spare height and not much choice. There was only one small wedge-shaped field near enough, which had a really rough surface with big ruts across it, but that had to be the one. It was next to the planned field. I made a really careful approach, really slowly, and just clipped the hedge before banging into the field and braking as hard as I could: the Jantar had an excellent disc brake. It was terribly rough and unpleasant.

Keith had anticipated my choice of field, had positioned himself and his camera accordingly, and was ecstatic about the quality of the film he had shot – but he needed two more takes. I had no option but to agree to make two more flights landing in the same inadequate and horrid field. We derigged the Jantar and headed back to Doncaster to do it all over again.

When I landed the first time, small boys appeared from the nearby housing estate in no time, just as they had when I landed there on the real flight. Keith bribed them to go home and get reinforcements, and return to be filmed when I landed for the second time. That's how we got such a good crowd of kids around the glider in the film.

We had a bit of amusement when I was flying on the ridge at Sutton Bank to do the sound recordings. I had to get lots of

variometer sound and wind noise, but I also had a script of radio messages to record. The only way was for me to make the calls to Steve Hill, who had the ground set in my car. So over about half an hour, we made all the position and status calls that I would make during the course of a 500km flight. I was "departing Sutton Bank" one minute, and "low over York" a couple of minutes later, with Steve acknowledging the messages. In no time I was "rounding the turning point at Didcot, but low", then "climbing well". Only minutes later I was "getting low southeast of Sheffield". Some other pilot (I suspect an individual from the GSA at Syerston) came on the air and announced to all and sundry: "He must be flying a fooking Phantom!"

My final job on the film was to sit in a soundproof glass box in BBC's Leeds studio to record some voice-overs, with Keith grinning and gesticulating from the outside to try to put me off. Then it was over to him to finish the huge job of editing, and to a professional to record the narration.

First viewing was scheduled for 14 April 1981 on BBC1, but this was postponed as my flight was upstaged by a far more expensive glider's maiden landing – Space Shuttle Columbia at Edwards Airforce Base. *Riding the Summer Sun* was screened a couple of weeks later, and again once more on BBC2.

I consider myself very lucky to have had the opportunity to make this film about a sport that gave me such pleasure for about 40 years, and have met many people who said they were motivated by it to try gliding – including at least two who later became CFI.

Of course, the ultimate accolade for any artistic endeavour is to be spoofed, which is what Pete Burns did for Keith and I with his excellent *Last of the Summer Thermals*. I had the pleasure of appearing in a walk-on part at the end of his film.





Pseudo lenticular of the hydraulic jump

# PHENOMENON OF HYDRAULIC JUMP

Bernard Eckey researches a fascinating weather occurrence

**I**NTRODUCED the concept of a 'hydraulic jump' in *Soaring Australia* last year and am very grateful to the surprisingly large number of fellow pilots who have provided feedback and passed on their practical experiences, which has allowed me to expand on the concept.

A hydraulic jump occurs when a medium travelling at high velocity transitions into a zone of lower velocity. When this medium is abruptly slowed, its initial kinetic energy is converted into potential energy by piling up on top of itself. The spillway photo (see right)

serves for illustration purposes, but interested readers can easily create a hydraulic jump at home. By fully opening the tap above the kitchen sink the effect can be observed on a small scale.

Another even more impressive photo was found on the internet. It shows fast flowing water draining off a reef on the far left and by doing so it is forming a hydraulic jump on the right of the picture (see top of p46). Although the density of air is only about 1/800 of water, scientific papers and practical experience suggest that the vertical extent



Hydraulic jump at spillway

**IT GIVES ITS TRUE NATURE AWAY BY A SERRATED LEADING EDGE WITH COMB-LIKE 'TEETH' EXTENDING HUNDREDS OF METRES OR EVEN SEVERAL KILOMETRES INTO WIND**



Hydraulic jump in the ocean

✦ of such a hydraulic jump can be even more substantial in the atmosphere.

**Delving into research literature**

As part of my research into this phenomenon, I obtained a copy of Jean-Marie Clément's book *Dancing With the Wind*. It contains 26 pages on the subject and highlights that the scientist Giorgio Bidone had already provided the theoretical basis of the hydraulic jump in 1819. Although it is a regular occurrence in mountainous terrain or hilly areas, it has not yet found its way into

gliding literature after almost 200 years.

Back to more practical matters now and onto the question; how we can identify the hydraulic jump and distinguish it from the much better known lee wave? Clément provides a few clues, allowing us to recognise a hydraulic jump by ground or airborne observations alone.

To start with, it is almost always accompanied by an upper level cloud formation, which – at its leading edge – can appear similar to a lenticular cloud. Clément uses the term 'pseudo lenticular' when he refers to this high-altitude condensation cloud. It gives its true nature away by a serrated leading edge with comb-like 'teeth' extending hundreds of metres or even several kilometres into wind. By way of an example he kindly supplied the picture at the top of p45 and he believes that the hydraulic jump can be encountered even over relatively flat ground. In this case, the initial trigger would be an air mass (cold and/or dry) flowing across a convergence.

To allow readers a comparison with classic lenticular clouds, I have included a photo taken while flying in New Zealand (see left).

Glider pilots with practical hydraulic jump experience know that – compared with conventional lee wave – the hydraulic jump up draught extends over a larger area, but generally provides more moderate climb rates. Classic lenticular clouds are usually bulging at the top and can often be identified by the Foehn gap, as well as

Classic lenticular lee wave

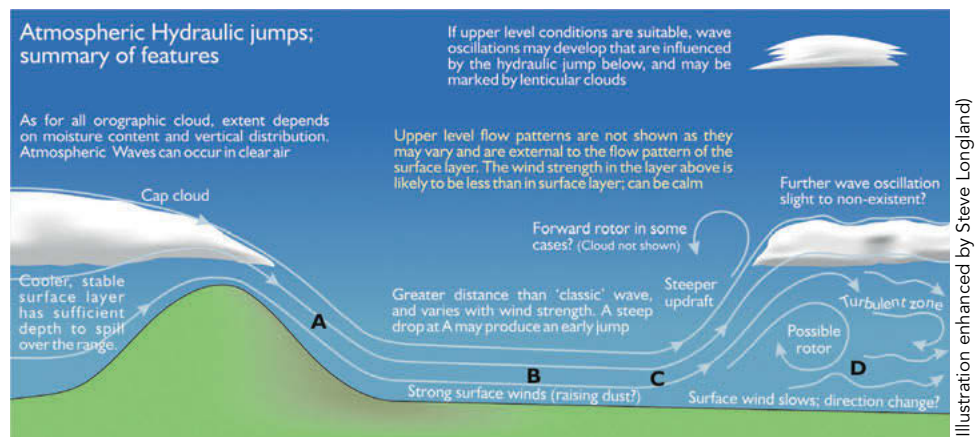


their arrangement in rows running parallel to the obstacle on the ground. The pseudo lenticular of the hydraulic jump, however, is mostly flat and can extend over tens of kilometres downwind. The most important characteristic by far is an almost total absence of downwind secondary or tertiary airflow oscillations.

But Bidone is not the only scientist who has studied the hydraulic jump in detail. The American Meteorological Society published two scientific papers by L Armi & G Mary in 2011. The most relevant one is titled: *The descending stratified flow and internal hydraulic jump in the lee of the Sierras*. The authors investigated a westerly airflow across the Sierra Nevada ranges in California, including the downslope flow into the Owens Valley which is located just to the east of it. Feel free to contact me: [Eckey@internode.on.net](mailto:Eckey@internode.on.net) if you are keen to wade through 17 pages of scientific papers and require a copy. The following is an attempt of an abstract with an emphasis on practical implications and without naming any topographical features of the area.

The research states that air density differences upstream and downstream of a mountain barrier are crucial for a development of a descending flow into a downwind valley. Even a strong cross-barrier flow is not sufficient to cause air to flow towards the valley floor on the lee side. Although the air overflowing the barrier is typically colder, it only descends into the downstream valley if its temperature has fallen to match the potential temperature of the downstream valley floor. (An explanation of 'potential temperature' can be found later in this article.)

Air creeping through various mountain passes prior to the onset of the hydraulic jump is referred to as 'gap overflow', but it was found to have no bearing on the subsequent event. Only when the bulk of the air mass – the substantially thicker 'jump layer' – crossed the barrier, was the hydraulic jump triggered and subsequently confirmed by soundings and observations. Simultaneous airborne measurements from within the University of Wyoming's research aircraft (King Air) found that the hydraulic jump occurred only in a single location and provided updrafts of up to 7m/s (14kts). The 'waving aloft' extended to an altitude of around 22,000ft. Lower down, the air was moist enough to form clouds whose thickness and extent were recorded by the aircraft's cloud radar. Subsequent evaluations



(Illustration enhanced by Steve Longland)

The diagram above shows some differences between a hydraulic jump and more familiar forms of lee wave. The flow pattern is similar to that of hydraulic jumps that form in rivers and channels. The important condition is the cool surface layer that spills over the range with sufficient speed to act in a similar way to a stream of water flowing down a chute. The scale of hydraulic jumps can vary from low ridges less than 1,000ft high, to major mountain ranges. Strong downslope winds are well documented, but less detail is known about the flow patterns further downwind. This diagram is based on personal observation (see separate notes) and information from a range of sources, but some of it is speculative. Critique or observations are welcomed; glider pilots spend a lot of time looking closely at the sky and have made many contributions to science!

**Significant stages of the flow include:**

- A. A (relatively) cool, stable, shallow, surface layer flows rapidly down the lee side of the ridge or range, remaining isolated from the layer above. Strong downslope winds may focus where they spill over saddles in the ridge or funnel down valleys, with localised effects on the jump.
- B. The surface flow here is too rapid for a standing wave to form, as higher velocity waves in shallow layers are prevented by the limited depth. This section is referred to as having super-critical flow. The distance to the hydraulic jump is greater than that for conventional lee waves, but this may decrease if the wind speed decreases. Any increase in the wind velocity results in a downstream delay of the hydraulic jump.
- C. At this point the flow slows to a critical velocity at which a jump is able to form that matches the wind speed, as per a standing wave. It is possible that surface and terrain features retard or disturb the flow and trigger an earlier jump. The jump builds abruptly with a steep face, as kinetic energy is converted to potential energy. Kinetic energy is also absorbed by turbulence within the jump, possibly with rotors forming. If the jump is sufficiently steep, it is possible that it 'breaks' forward into a rotor, similar to 'stoppers' found below weirs and waterfalls.
- D. Downstream of the jump in the deeper layer, surface winds are slower (sub critical flow) as the flow diverges, and may shift general direction. Oscillations are less likely, and limited in amplitude if they do occur, as much energy is absorbed by the turbulence.

also confirmed only a single airflow oscillation and a gradual downwind collapse of cloud patterns.

These findings are in line with the practical experiences of Jean-Marie Clément and indicate that the visible effects observed with fluids can be directly applicable to the atmosphere.

Meteorologists use 'potential temperature' to compare the properties of various air parcels located at different levels in the troposphere. Temperatures normally decrease with altitude and to allow proper temperature comparisons they bring air parcels adiabatically to a standard level of 1,000 millibars.

**Practical examples**

By now it would be obvious that the hydraulic jump is caused by a fast flowing, downslope airflow and gets triggered when it is slowed to a critical velocity, or when it

**THE MOST IMPORTANT CHARACTERISTIC BY FAR IS AN ALMOST TOTAL ABSENCE OF DOWNWIND SECONDARY OR TERTIARY AIRFLOW OSCILLATIONS**

## I TRIED TO 'PUSH FORWARD' THINKING I WAS IN THE ROTOR, BUT I COULD NOT ENGAGE ANY WAVE EITHER FORWARD OR BACKWARDS OF THE BUOYANT BUT TURBULENT LIFT AREA

✎ collides with an orographic obstacle. With conventional lee wave, the likely area of lift can be determined by a rule of thumb, which states that it is normally located around  $\frac{1}{2}$  wavelength from the summit. This is clearly not the case with the hydraulic jump! According to Clément, it is found much further away from the mountain range and can be located downwind as much as five to 10 times the wavelength of a classic lee wave. The meteorological conditions for lee wave are also vastly different.

Now to reports from fellow pilots, who have responded to my request for feedback. The first response was received from Alan Patching, who reported on a flight downwind of the escarpment at Bacchus Marsh (Victoria, Australia). He stated that: "Derek Reid – a very good meteorologist and glider pilot – had a winch launch which broke the wire at about 200ft and he climbed away 'zig-zagging' long enough to give us a reason for the flight, which he called hydraulic jump."

Barry Hendy provided feedback on a flight in a Super Dimona over the Yarra Valley (Melbourne, Australia). The flight was accompanied by severe turbulence and variometer indications of  $\pm 1000\text{ft}/\text{min}$ . He said: "I tried to 'push forward' thinking I was in the rotor, but I could not engage any wave either forward or backwards of the buoyant but turbulent lift area."

John Gwyther submitted another valuable

contribution. His airfield is in the lee of the Great Dividing Ranges in Gippsland (Victoria, Australia), from where he operates a self-launching ASH 26 E glider. He has taken video clips of cloud formations and believes that one of them shows the underside of a 'hydraulic jump'. He wrote: "I'm now looking at my memories of wave-like clouds down here... and believe that the hydraulic jump occurs relatively frequently. It shows up on radar with strong NW winds and showers on the main range."

Terry Jones – a New Zealand-based glider pilot – pointed out that the phenomenon is often encountered in the area around Mt Cook. Colder air often pours over from the West Coast and descends close to the steep slopes into the valley floors below – a drop of between 3,000-4,500ft. Terry goes on to say that the resulting lift is quite reliable, but due to the rather special topography the air bounces back very close to the descending air mass. (I have witnessed this downslope flow of clouds myself, but have never been game to get close due to a total lack of out-landing options in the area.)

Richard Geytenbeek, a highly experienced glider and power pilot, provided by far the most extensive input, which is reprinted in full below:

### Hydraulic jump observations, by Richard Geytenbeek

I have observed what I believe to be hydraulic jumps on a number of occasions along the Mt Lofty Ranges in South Australia. I have, for many years, lived within the zone of strong down-slope winds (known locally as gully winds) that blow over the eastern suburbs of Adelaide when cooler maritime air spills over the range with winds approximately from the south east. These are strongest at night, aided by surface cooling, but can begin before sunset and persist into the next day. I have sometimes observed a line of ragged standing clouds that develops several kilometres to the lee of the ranges, at the point where strong surface winds abate beneath the clouds, an indication of a possible jump.

Further south at Aldinga Airfield, I photographed a similar cloud line (left). The surface wind was 15-20kts and the internal cloud motion was very turbulent. The cloud-free gap from the range was approximately 3km, significantly greater than the gap observed for classic low-level lee waves that I have soared, along similar low ridges near Burra to the north.

Cloud band (standing) over Aldinga Airfield, SA, looking approximately south, January 2008

- A North-western edge of Willunga Scarp approximately 1,100ft above airfield elevation
- B Cloud layer above Willunga Scarp
- C-D Leading edge of cloud band aligned crosswind above Aldinga Airfield
- B-D Gap approximately 3km





**Hydraulic Jump in surface fog near Cape Jervis, SA, looking west, 2 May 1988**

- A Extensive surface fog layer approximately 300ft deep
- B Face of Hydraulic Jump to approximately 1,200ft AMSL
- C-D Coastline of Backstairs Passage



The most convincing example of an atmospheric hydraulic jump that I have seen was in a layer of maritime air in Backstairs Passage between the Fleurieu Peninsula and Kangaroo Island, SA. This layer was made visible by sea fog (see photograph above). The fog approached from the SE as a smooth layer visible to the horizon, converging to pass through Backstairs Passage. Where the layer slowed as Backstairs Passage widens, it jumped abruptly into a smooth hydraulic jump that maintained position for more than an hour. This was the smooth undular form (having a smooth surface below), rather than the turbulent form seen in the spectacular Owens Valley photo taken by Robert Symons. There were several downwind oscillations, similar to undular bores in tidal rivers (try Google images). In this case the rapid flow and subsequent slowing resulted from the lateral constriction of the adjacent coastline, a common occurrence in rivers where hydraulic jumps can occur as constricting banks widen.

I took photos, temperature and wind observations to the Bureau of Meteorology in Adelaide, where Dr Warwick Grace confirmed that this was a hydraulic jump. Warwick subsequently prepared a paper on this event, having previously conducted extensive research on hydraulic jumps in the down-slope winds of the Mount Lofty Ranges, including the use of a motor glider and sounding balloons to gather data. I would like to thank him for kindly providing papers and texts to further my interest and for reviewing my annotated

diagram for this article. The sea fog example supports the possibility of atmospheric hydraulic jumps forming or being accentuated where a cool surface layer spills through saddles in ridgelines, or emerges from larger valleys.

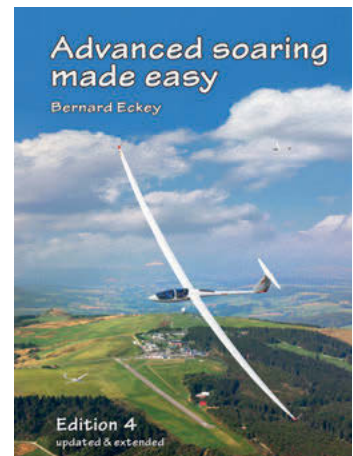
**Conclusion and outlook**

Hopefully this article is helping to shed light on a phenomenon that has so far attracted little interest amongst the wider aviation community.

Surprisingly, even the worldwide gliding fraternity has almost completely overlooked this very valuable source of soaring energy, but nearly 200 years after Giorgio Bidone first established the theoretical fundamentals, this topic is finally creeping into gliding literature. Bidone might have based his theories on fluids, but thanks to his scientific groundwork we can now explain some mysterious encounters with large-scale areas of lift.

Perhaps we would be well advised to replace the name 'hydraulic jump' by another term that better reflects this near vertical air mass deflection and one that glider pilots around the world can better identify with.

Let's learn from each other and freely share our experience with this very interesting phenomenon. Ongoing feedback would be most welcome, as it will help to identify areas where hydraulic jumps are frequently encountered. My sincere "thank you" goes to all fellow glider pilots who have already done so.



■ A revised and extended fourth version of Bernard's best-seller, *Advanced Soaring Made Easy*, is now available. It costs €54.90 plus P&P. To purchase, contact [eckey@internode.on.net](mailto:eckey@internode.on.net)

■ See also Alan Lapworth's article *Standing waves*, pp18-21, April/May 2012, which included hydraulic jump



Bernard Eckey is a pilot, instructor, record holder and head coach for South Australia. He flies an ASH 30Mi and has 3,500 hours (including multiple 1,000km flights and one 1,116km FAI triangle)

## 'GOOD RISK MANAGEMENT ENABLES YOU TO TAKE RISKS'

– Penny Lawrence,  
deputy director, Oxfam

### PRACTICAL RISK ASSESSMENT

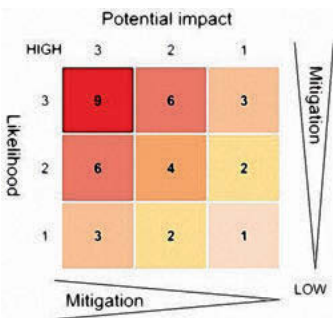
FIRSTLY, investigate and consider the event or situation to gain a good understanding about the factors at play.

Consider differing scenarios as individual risks, researching the facts of each in order to accurately establish:

- The likelihood.
- The impact.

Then mitigate by reflecting on what can be done to reduce the possibility of something happening; or the impact on the club if it does. You may need to develop contingency plans to mitigate certain risks. Consider too potential unintended consequences of measures to mitigate risks – they may be more risky than the original risk! Risk assessments and mitigations need to be communicated so that people understand what is possible.

If you use a risk assessment grid (see below), using either 'Low, Medium, High' or '1,2,3', this will have the effect of shifting it towards the bottom right.



■ The BGA has published Business Risk Assessment resources and a risk assessment template in the Club Development library.

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

# SHOULD YOUR CLUB BE A RISKY BUSINESS?

TAKING on a senior management role in a gliding club is a responsibility, one which should not be taken lightly. We owe the existence of our sport to the few who volunteer to do this and it is right that we support them as critical friends when they need it. However, unfettered attitudes to risk are one of the biggest risks our sport faces; this is how legislation gets gold-plated and results in volunteers drowning in bureaucracy. The solutions are to be found in well researched risk assessment and mitigation – think CBSIFTCBE, where we consider what we will do if our launch doesn't go as we intend (see side panel).

Clubs contact me seeking advice on club management matters. Sometimes people are apprehensive about the risks involved with letting something happen, or they have been stopped in their tracks by a club member speaking with certainty about the doom that will be found by following the committee's planned path. CASC, insurance, juniors and data protection all provide excellent fodder for doubters. It can be very frustrating.

### Why does it happen?

Partly it is because people care deeply about the welfare of their club, which is fine, but it is more helpful if people can do a little research before asking questions that start "It may be nothing, but..." so that they raise the beginning of a solution rather than a purely scary problem.

I have often wondered what happens in our gliding clubs where we have a lot of gifted, skilled and creative individuals, yet things get stuck and messy for no discernible reason. This is a sport where doing remarkable things, like staying airborne for an hour and flying to the next county and back, is unremarkable. We help one another to rig and launch, regularly trusting one another with our lives as we do so. So why the ground-based inertia, friction and drama? Is too tight an attitude to risk limiting gliding activity?

Consider this – one way we all mitigate risk is that our gliding clubs have a permission-based culture. This is appropriate in relation to flying activities where positive clearance to

do things is healthy. It has its place with certain non-flying gliding activities too, otherwise three people will all buy paint for the bunkrooms or cable for the winch. However, if you consider that the unwritten and unspoken assumptive setting is "I can't, unless someone tells me I can" then it becomes clear that club leaders must give explicit permission for people to do something, even volunteering. Deeside GC did just that and now have several new volunteers training to become inspectors.

### Prevailing culture

Expecting people to do things spontaneously simply does not fit the prevailing culture. On the flip side there is plenty of scope for ordinary club members to realise that if you want to muck in and get involved with making something happen, you really don't need to have permission to step forward. Go on, find out if anyone else is already doing it, but join in. It could be the most fun you have whilst you're not flying.

What happens if attitudes to risk are allowed to become unhealthy? People err on the side of caution and falsely cite restrictions in all sorts of legislation and insurance policies in order to minimise risk and keep everyone safe. The logical end point is the purchase of very large locks for the hangar, all glider trailers and the bar – which gives rise to a much more likely risk. Who wants to be a member of a club riddled with caution and negativity? Membership retention becomes more challenging and the club starts to dip into reserves in order to stay in business.

Another key aspect of gliding culture is that we are very good at sharing experience and learning collectively – it is vital as part of our collective risk management for flight safety. These are natural habits in our community and can easily be extended beyond the flying activities. Good quality risk assessment and mitigation will increase people's confidence in the art of the possible and help your club to be a vibrant and enjoyable place for taking part in all sorts of gliding activities.

# The BGA Team and General Information



## Executive Committee

### Chairman

Peter Harvey  
[chairman@gliding.co.uk](mailto:chairman@gliding.co.uk)

### Executive Members

Neil Goudie, David Latimer, Bill Craig  
George Metcalfe, Nick Bowers,  
Andy Perkins, Lisa Humphries,  
Charlie Jordan, Anthony Smith

### Treasurer

Anthony Smith

### Company Secretary

Anthony Smith

## HQ

Tel: 0116 289 2956  
Fax: 0116 289 5025  
[office@gliding.co.uk](mailto:office@gliding.co.uk)  
[www.gliding.co.uk](http://www.gliding.co.uk)

### Chief Executive

Pete Stratten [pete@gliding.co.uk](mailto:pete@gliding.co.uk)

### Office Manager

Debbie Carr [debbie@gliding.co.uk](mailto:debbie@gliding.co.uk)

### Accounts

Peter Bishop  
[accounts@gliding.co.uk](mailto:accounts@gliding.co.uk)

### Administration

Lizzie Pike [lizzie@gliding.co.uk](mailto:lizzie@gliding.co.uk)  
Sheila Weston [sheila@gliding.co.uk](mailto:sheila@gliding.co.uk)

### Communications Officer

Keith Auchterlonie  
[keith@gliding.co.uk](mailto:keith@gliding.co.uk)

### FAI Badges Officer

Basil Fairston [basil@gliding.co.uk](mailto:basil@gliding.co.uk)

### Chief Technical Officer

Gordon MacDonald  
[cto@gliding.co.uk](mailto:cto@gliding.co.uk)

### Airworthiness Quality Manager

Keith Morgan

### Magazine Editor

Susan Newby  
[editor@sailplaneandgliding.co.uk](mailto:editor@sailplaneandgliding.co.uk)

### Child Protection Lead

Karon Matton [karon@gliding.co.uk](mailto:karon@gliding.co.uk)

## Performance & Development

### Competitions & Awards

Liz Sparrow

### Team GB Manager

Graham Garnett

### Development

Dave Latimer

### Development Officer

Alison Randle  
[alison@gliding.co.uk](mailto:alison@gliding.co.uk)

### Marketing

BGA Office

### Aim Higher

Kevin Atkinson

### Schools and Colleges Lead

Yvonne Elliott  
via the BGA office

## Operations

### Safety

Pete Stratten

### Airspace

John Williams

### Instructing

Colin Sword

### Training Standards Manager

Mike Fox  
[mike@gliding.co.uk](mailto:mike@gliding.co.uk)

### SLMG

Paul Whitehead

### Technical

Howard Torode

### Flying Operations

Peter Moorehead

## CAA SLMG Instructors and Examiners

A number of CAA authorised SLMG examiners are appointed via the BGA to support SLMG activity under the management of the BGA SRE SLMG. Contact details are at <https://members.gliding.co.uk/examiners>

## Gliding Examiners

BGA gliding examiners are appointed regionally and directed by Senior Regional Examiners. Coaching and tests can be arranged via SRE's who are listed at <https://members.gliding.co.uk/pilot-resources-flying-training/examiners/>

## Safety Guidance

There is extensive safety guidance including a toolkit for club safety officers at <https://members.gliding.co.uk/safety>

## Airworthiness Inspectors

There are a number of BGA inspectors across the UK. A proportion of them are approved to issue an ARC and are listed by region at <https://members.gliding.co.uk/arc-signatories>. Regional Technical Officers can be contacted via the BGA office.

## Airworthiness Guidance

Extensive guidance for owners of non-EASA and EASA aircraft is at <https://members.gliding.co.uk/airworthiness>

## Senior Accident Investigators

Chris Heames, Peter Claiden

## Other Information

### Courses and Seminars

BGA courses and seminars information is at <https://members.gliding.co.uk/courses/>

### Fees

BGA fees are detailed at <https://members.gliding.co.uk/fees-and-charges/>

## BGA Office Contact Details

8 Merus Court, Meridian Business Park, Leicester, LE19 1RJ  
tel: 0116 289 2956 fax: 0116 289 5025 email:[office@gliding.co.uk](mailto:office@gliding.co.uk)





*Clockwise from top left:*  
Gold and Diamond heights at Portmoak for Devon & Somerset members (l-r) Pete Startup, Stu Procter and Tom Sides (Eric Alston)

Roy Newman, 85, was sent solo at Dorset, 28 years since last soloing. Roy (middle) is pictured with CFI Nathan Hanney (right) and instructor Gerry Cox (Ian McCormack)

The first of April and one of Cosford's Harriers is rolled out to the Wrekin launch point. Double black weak link!

Llanbedr Easter 2017: Wrekin's Geoff Catling and Colin Haynes prepare for an aerotow in the K-21

Wolds GC early-solo pilot Craig Scott (front, and now off checks), with instructor Tony Kendall, concentrates hard on approach (George Morris)

Darlington members Martyn Cobham in Discus CS, Arthur Docherty in ASW 20BL and Ryan Hobson in K-8, flying over Rampton (Martyn Cobham)

■ 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](mailto:editor@sailplaneandgliding.co.uk) or upload to: [www.sailplaneandgliding.co.uk/dropbox](http://www.sailplaneandgliding.co.uk/dropbox)





*Clockwise from above:*  
Members get into the spirit of things on Red Nose Day 2017 at Bicester

On 26 April, Colin Weyman and Dave Piercy aerotowed to 1,800ft and, after releasing, climbed to cloudbase at 5,500ft thereby gaining the first mile high flight of this year at Dorset Gliding Club. Main pic is looking across at Portland Bill (Dave Piercy)

Oxford University Gliding Club had an incredible week of flying during its recent expedition to the Scottish Gliding Centre. Everyone experienced wave for the first time, with some going up to 10,000-12,000ft. This photo was taken at around 5,600ft with OUGC's K-21, ESB, flying alongside in wave (Mylynn Bowker)

Carla Fernandez-Llorens gives a thumbs-up to the Peterborough & Spalding GC initiative to encourage more women to take an interest in gliding

■ Our thanks to all the photographers and to our *Club News* contributors for sending these in.



# CLUB NEWS

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

DESPITE spring arriving, the number of days we have been able to glide, let alone soar, has been very limited. Our dates with the motor glider for cross-country navigation and field selection have all been cancelled due to bad weather. But the first signs of spring are now in the air as I write this and there has been some limited thermal activity around Hinton. Congratulations must go to Simon Ducker, who has successfully become a tug pilot and carried out his first tow on Sunday 26 March, much to his and the club's delight.

**David Sibthorp**

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

CONGRATULATIONS to Sam Arnold (16) and Rich Hafferty for their BI ratings. Thanks to Tim for the use of the Acro with spin whiskers to complete the training. We welcome Ken Reid on board as our new CFI and welcome back Frank Soowamber after his RAF officer transition. Thanks to Bob Bromwich for all the hours spent transitioning our fleet to new 8.33khz frequency radios – he's an unsung hero!

**Ian Harris**

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

WINTER seems to be receding and we are looking forward to better things. Our tug has come back online, aircraft are being returned from the workshop and our whole fleet is becoming available. We held our annual safety evening in February when we were addressed by the chief executive of the GA Safety Council, Mike Donoghue, as well as our own CFI and safety officer. Various members attended the BGA Conference where Dick Dixon was presented with a medal for services to gliding. Our AGM is planned for late April with the Open Day in May.

**Chris Basham**

**BICESTER (BICESTER)**  
**WWW.BICESTERGLIDING.COM**  
**515458N 0010756W**

AFTER eight years as CFI, Dave Watt passed the baton to Julian Bane. Dave has established a great flying culture at Bicester and coached many people in the

skills required for cross-country flying and competition. Julian has developed and grown a very successful cadet scheme and recently received the new Haywood Aviation award for Excellence in Gliding Instruction. Meanwhile, our former chairman Bob King received a BGA Diploma for his work during the sale of the airfield by the MoD and transition to a commercial lease. Kevin Atkinson recently delivered the Aim Higher ground school to kick our season off.

**Martin Clark**

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

ARTHUR Williams has taken over the task of club secretary. Both the Scout and Pawnee are back in action. Our Wings & Wheels event was a great success and a good contribution was made to our local charity 'The Home Farm Trust'. Our competition is fully subscribed and all we need is better weather than last year; two days should not be hard to beat!

**Mike Pope**

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

CONGRATULATIONS to Geoff Forster, who has become our CFI after gaining his Full Cat. Many thanks to Colin Sword for being at the helm since May 2016. The fleet is currently undergoing a major avionics upgrade with the installation of 8.33khz radios and FLARM. In March we were privileged with an excellent briefing on 'Cross-Country Flying in Wave' from two of the experts - Santiago Cervantes and John Williams, who paid us a visit from across the border. We are grateful for the excellent knowledge and experience they imparted and hope to put it to good use at Milfield.

**Stuart Black**

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

AT our recent AGM, we welcomed Geoff Hughes as our new chairman and thanked Bob Pettifer for his work over the past seven years. Our membership numbers are holding their own and, despite the worst weather that anyone can remember, our launches and flying hours last season were both up. The season is now gearing up – new BIs Laura

Maksymowicz and Mike Desmond have started flying visitors and our cross-country league kicked off from the very first dry day. We now have a full programme of club weeks, a mini-comp weekend and many expeditions. Bring on the good weather!

**Keith Clarke**

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

A NEW, reduced size committee took over the club's management and started a major drive to increase the volunteer ethic. Too many jobs have been done by too few in recent years. Significant changes can be expected with a new public café opening shortly. This will involve a degree of disruption for building works. A successful prize-giving dinner saw the club prizes for 2016 awarded. Well done to all. Four new cadets were chosen to receive sponsorship awards for this year and started their training. The flying has not been great. Some decent weather must arrive soon.

**Greg O'Hagan**

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

JOHN Sentence has stepped down as our chairman – many thanks for the sterling work John – and is succeeded by long-time member Christopher Morton-Fincham. We had our annual prize-giving and dinner in March with our president Sir Lyonell Tollemache and Russell Cheetham. We recently got four members successfully through their Bronze exam and look forward to them spreading their wings. We were disappointed to see the CAA's latest chart is showing us as a disused airfield! We are very active and look forward to visitors. George Rizk has run some aerobatic badge courses; if you're interested, please contact our office.

**Danny Lamb**

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

MANY thanks to Diane Saywell for the loan of her lovely Robin for tugging duties over the past few weeks, while our Pawnee has been getting essential maintenance. Thanks also to Steve Wilkinson for flying the Robin, along with Diane. Eileen Scothern has been appointed our new child protection officer,

(Left to right): Simon Ducker after his first solo tug at **Banbury; Bath, Wilts & N Dorset's** Dick Dixon (left) receives his medal from BGA Chairman Peter Harvey; K-21 at **Burn**. The old runways are looking their age, but a nice new smooth one will be completed soon (Russell Walsh)



thanks to Stuart Leadbetter for his long service in this role and "Mac" McDermott has become our deputy safety officer, shadowing Derek Wilson, who will be passing on his extensive knowledge to Mac. After months of planning, work begins in April with new tarmac rolled out on our three runways.

**Russell Walsh**

**Cairngorm (Feshiebridge)**

[www.gliding.org](http://www.gliding.org)  
570613N 0035330W

WE welcome the Grob two-seater Papa Kilo back into service after its 3,000hr inspection, which has taken many months over the winter. Grateful thanks to Nick Norman, Dave Weekes and Ian Carruthers, who have masterminded this lengthy project. The early spring weather in the Highlands has been sunny and warm with some good wave days. At the AGM in April Dave Brown was elected as our new chairman, replacing Mike Morrison who recently took over as CFI.

**Phil Hawkins**

**CAMBRIDGE (GRANDSDEN LODGE)**

[WWW.CAMGLIDING.UK](http://WWW.CAMGLIDING.UK)  
521041N 0000653W

THE AGM was held in March with thanks to all the officers and committee members who stood down and a welcome to Colin Cownden (CFI), Michael Samuels (secretary) and to Rebecca Bryan and Chris Lewis (committee members). Richard Baker and Geoff Brown, both long-standing members, were unanimously elected as honorary members. The new season started with something of a bang in April with seven-day a week flying, the first five-day course of the year, the start of Tuesday and Thursday evening flying, expeditions to Jaca (we hope), to Sutton Bank, and the Scout's air activities weekend.

**Chris Davis**

**COTSWOLD (ASTON DOWN)**

[WWW.COTSWOLDGLIDING.CO.UK](http://WWW.COTSWOLDGLIDING.CO.UK)  
514228N 0020750W

WE are pleased to announce that Larry Bleaken, our president and founder member, has been awarded a Royal Aero Club Bronze medal for his farsighted and vital help organising the purchase of our airfield from the MoD in 1980. At the BGA conference, Richard Carter was awarded a BGA Diploma to recognise his hard work over many years maintaining our ground fleet. Our nationals

on 22 July have now been expanded to include the Standard and 20m two-seat classes. It is with sadness we report that David Nichols, a former flight test engineer, passed away suddenly in March.

**Frank Birlison**

**CRANWELL (RAF CRANWELL)**

[WWW.CRANWELLGC.CO.UK](http://WWW.CRANWELLGC.CO.UK)  
530231N 0002936W

CONGRATULATIONS go to Toby Evan and Dan Ulyatt, who have completed Basic Instructor training and also to Tim Davies and Neil Atkins, who have completed their Full Instructor ratings. No doubt all will be kept busy throughout the following months. The K-21 has been refurbished and is looking very sparkly! Our thanks to Mick Wood and Dave Pratt, who have spent a good number of hours on the road to take and retrieve this aircraft from being refurbished. We look forward to the rest of the soaring season when no doubt we will have some new badge claims.

**Zeb Zamo**

**DARLTON (DARLTON)**

[WWW.DARLTONGLIDINGCLUB.CO.UK](http://WWW.DARLTONGLIDINGCLUB.CO.UK)  
531444N 0005132W

THE field conditions have improved over the past month, allowing the winch to be used again for launching. This has enabled members to carry out and complete their annual flying checks. The annual checks lecture, this year on approach and crosswind landings, have been given by our instructor team. In the last week of March, some of our members took the club's Janus to Portmoak and had enjoyable time flying, when the weather permitted. This year's annual dinner and award ceremony was held at the Eyre Arms, Rampton on Saturday 8 April.

**Barry Patterson**

**DEESIDE (ABOYNE)**

[WWW.DEESIDGLIDINGCLUB.CO.UK](http://WWW.DEESIDGLIDINGCLUB.CO.UK)  
570430N 0025005W

KIEREN McGregor flew to Easterton for his 50km. Dylan Boddrell got his Gold height and 5-hour duration. We have started major clubhouse refurbishment and an avionics upgrade to our fleet. We launched a community volunteer scheme, where locals get free membership in return for assisting at the club during the week. We conducted a membership survey, the results showing a positive club environment. Following a

gorse wildfire at the edge of the site, we are embarking on a gorse removal programme. We are taking bookings for September and October wave season, both for club expeditions and visiting pilots

**Glen Douglas**

**DERBY & LANCS (CAMPHILL)**

[WWW.DLGC.ORG.UK](http://WWW.DLGC.ORG.UK)  
531818N 0014353W

SUMMER has arrived and we welcome Alan Jolly back as resident instructor, and Tim Pearson as winch driver. Garry Lewis has taken over as chairman, and we thank Keith Armitage for his services in this role. Congratulations to Don Mackenzie becoming an additional DCFI. We also thank Martin Powell for his many years looking after our insurances, and saving lots of money. We welcome Kate Marlor-Gem as our new H&S officer (non-flying operations). Thanks to Warwick Horne and his team, all club gliders, and a few private ones (raising over £1,000 for the club), have been inspected over the winter.

**Dave Salmon**

**DEVON AND SOMERSET (NORTH HILL)**

[WWW.DSGC.CO.UK](http://WWW.DSGC.CO.UK)  
505107N 0031639W

THE club welcomed family and friends of Matt Wright from across the country to a Dude Day party. A hangar was transformed with photos, videos and cartoons remembering Matt, and the Matt Wright memorial fund is growing. At last there have been cross-country flights from North Hill. Expedition season started with a bang, with Pete Startup gaining his Diamond height at Portmoak, and Stu Procter and Tom Sides both getting Gold height. Congratulations to James Smart for his first solo in a glider. Competition Enterprise, 1-8 July, is fully booked with 40 entries.

**Jill Harmer**

**DORSET (EYRES FIELD)**

[WWW.DORSETGLIDINGCLUB.CO.UK/DGC](http://WWW.DORSETGLIDINGCLUB.CO.UK/DGC)  
504233N 0021310W

MEMBERS have been busy getting gliders and equipment ready for the soaring season. We are still looking at ways to make our club busier and attract new members. Our new clubhouse extension is being very well used and picture windows in the south-facing wall mean that everyone can have a good view of the field. Our Jurassic Coast gives a spectacular view of the coast and panoramas,



(Left to right): **Cambridge** member Paul Barnes maintaining his LS8 in the club's new rotator; Peter Field congratulates James Smart on first solo at **Northill** (Graham Barden); **Essex** members Rob Short and Alex Harris excited to be flying the Ridge at the Long Mynd (Steve Rhenius)



including Portland Bill and the Isle of Wight, and is very popular. Congratulations to Roy Newman, who was sent solo again at the age of 85 – 28 years since last soloing.  
**Colin Weyman**

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

APRIL has been a good month for the club. We have had visitors and good flying. On our trip to Portmoak we had very good weather and many achievements. Congratulations to Bryon Smee, who completed his cross-country endorsement and got a Silver height; Allan Wales, who completed his Bronze badge; and David Neilsen, who got his Silver Height. Murrin McIver thoroughly enjoyed her flights with Grandpa (John McIver).

**Wendy McIver**

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

AT the time of writing, we were finishing off winter maintenance and getting the fleet ready for the 2017 season. Work included equipping the fleet with 8.33 radios and a major overhaul of our Super Cub's engine. We also made two new officer appointments: John Weddell took over as safety officer and Lynette Swift has taken on the new role of child protection officer. It is shaping up to be a busy year for us, as we have a large backlog of trial lessons to fly and sales for this year are already ahead on last year's number.

**Mike Jeater**

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

EDENSOARING re-opened in May. In 2017 we will have the additional services of some well-known instructors from other clubs to help us keep running smoothly. Site facilities have been improved again. Visiting club expedition bookings are coming in steadily, with most clubs and visitors returning after many successful weeks last year. We still have our 50km ridge and clear airspace to FL195 above site and in wave off the Lake District National Park. There are stunning views both for pilots above and for families exploring on the ground. Call 07866 730 273 to book in a club visit.

**John Castle**

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

WE returned to Ridgewell in early spring and thank our friends at Rattlesden for allowing us to fly with them. The expedition to the Mynd took place in March, where everyone flew. Many thanks to Alex Harris and Dave Hertzberg for their instructing and also to Guy and Roger from the Mynd for the same. There may be plans for another excursion later. Other plans include our annual open day, three summer flying weeks and, of course, the occasional BBQ. Meanwhile, we hope to welcome new members and see some new solos and Bronze and Silver badges during the season.

**Cathy Dellar**

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

THE soaring season begins and some of our junior members have equipped with single-seat aircraft to expand and extend their soaring flights; Jake Gazzard has a very tidy SF27A, Toby Brown a Standard Cirrus, and Kristoff Ahlner has an insurance share in a Discus. Of the more mature members, Jerry Newberry has purchased a LAK 17 FES, selling his LAK 17B to Vernon Bettle, and Norbert Eschle and Richard Hayhoe are sharing a newly-purchased Libelle 201B. A sub committee to consider our next training aircraft purchase to modernise the fleet has been set up.

**Paul Robinson**

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

DESPITE a disappointing winter, our keener members kept flying and, with improving weather, other members are reappearing. Early April saw good wave, with three flights over FL100 on the Ladder. Our third winter lecture was well supported, with talks on aerobatics, field landing and ground handling. We have managed to keep membership and soaring fees unchanged for four years; launch fees are now cheaper than they were eight years ago. We are pleased that our membership is steadily increasing, with a mixture of beginners and former pilots. We would be pleased to see visitors at our task week, or courses.

**Diana King**

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

CONGRATULATIONS to James Farr, who soloed the day after his 14th birthday in challenging conditions. He is the youngest new pilot and a first for the club. Chris Woodward also converted to his Astir CS77, another welcome achievement; his son Dave has started training to be a BI. At the time of writing, preparations are under way for a busy Easter course.

**Jim Hasker**

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

CONGRATULATIONS to Alexander Naylor, who went solo on his 14th birthday to become the youngest glider pilot in Scotland. Trained by (amongst others) his proud Dad Stuart, Alexander made a smooth landing wearing the broadest smile of his life! Thank you to Mike Laity for building a 'glider turning rig' that will save us a few hernias in the years to come. Prize-winners at this year's AGM included: Stuart Naylor and Carol Peters for most meritorious flight, Phil Penrose for height gain, Geddes Chalmers for distance, and Mike Black was awarded the 'monkey' for providing us with learning opportunities.

**John Thomson**

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

AT the AGM, Les Connolly returned as chairman. Gen Francis, one of our lady pilots, is a welcomed to the committee. The bookable flying lesson system is well under way and we employ professional winch drivers at weekends for efficient operations. Courses and trial lessons are proving popular. Our four two-seaters are now all equipped with full radios, enabling trainee pilots to learn correct radio procedure. We are developing our workshop facility, along with upgrading our hangar. We continue to invest in and maintain our assets and to provide an increasingly good club environment for our members.

**Mike Bowyer**

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

CONGRATULATIONS to Roly Bracken and Gio DellaSavina (solo), Alister Webb (Bronze) and



(Left to right): Chris Roberts at FL60 in Herefordshire's two-seater (Mike Hayes); James Farr went solo the day after his 14th birthday at Heron; 'new' tractor tows 'new' (ex-ATC) winch at Dunstable; Mendip first solos (L-R) Dan Evans, Tom Hogarth, John Connor and Jeff Green



Tom Wilson, who collected the Caroline Trust award at the BGA conference. The Royal Air Force Association Basingstoke branch have granted a scholarship for an Odiham Airman for 2017 and we hope this will become an annual award, helping with the costs of flying for younger service personnel. The start of season briefing was well attended followed by a lively social. Our ongoing marketing campaign has resulted in some new service members and is helping to raise the profile of the club across the local community.

**Neil Armstrong**

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

WE are at last having some good flying weather and we have managed to celebrate our annual dinner – as a novelty held in a club where the menu was pie and peas (it's what we do in the north). Graham Sturgeon demolished the opposition in the trophy competition. The wooden spoon was won by our chairman. John Burdett was awarded the trophy for services to the club. We hope to have our IS28 back in the air soon, which should increase our flying. There is also a rumour that a new clubhouse is a possibility.

**John Martindale**

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

AS we emerge from the winter, Lasham continues to show the way with some very good early season cross-countries by the usual suspects. We welcome back Michael Harrison, Jordan Bridge and Mike Birch as our course instructors for the 2017 season. Our winter lectures season is now complete; 20 events were organised and over £1,000 raised for various good causes. Preparations continue for Euroglide 2017, which will be held in August. By the time this report reaches you, hopefully many more cross-country kilometres will have been flown.

**Mike Philpott**

**LINCOLNSHIRE (STRUBBY)**  
**WWW.LINCSGLIDING.ORG.UK**  
**531836N 0001034E**

THE rain has passed and the field is drying. Congratulations to Pete Harrison for converting to the club Pirat. At the AGM we decided to institute the Strubby Diamonds. Our site is notoriously difficult to get away

from, so we are setting our own diamonds. No badge just fun. Our task week is 14-18 August and we hope to include a Swallow meet within that. We have two on site and hope other owners will join us.

**Dick Skerry**

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

CONGRATULATIONS to Peter Hardman, Paul Boet, Robert Hubrecht and Brahim Bellahsayn on their RT licences and thanks to Chula Rupasinha, who led the course. We are pleased to have acquired a 'new' tractor, to tow our winch. Our thanks also go to Martin Smith, who led another successful pilot development course, and to Robin May, who led our spring expedition to Llanbedr. Besides spectacular local soaring in ridge, thermals, convergences and wave conditions, cross-country flights included visits to Snowdon, the Mynd and Talgarth. As always, guest pilots are very welcome at our Regionals (5-13 August).

**Andrew Sampson**

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

CONGRATULATIONS to John Connor and Dan Evans on going solo. We have been approved by the Air Cadet Organisation to provide introductory flights. We have trialled the sessions and further flights will be arranged for one weekend per month. At the BGA AGM, recently retired chairman and founder member, Barry Hogarth, was awarded a Diploma for services to gliding over 42 years. A series of winter lectures, organised by DCFI Simon Withey, was very well attended. Terry Hatton is trialling booking trial lessons/introductory flights online, and marketing member Penny Broad is organising recruitment presentations.

**Tom Hogarth**

**MIDLAND (LONG MYND)**  
**WWW.MIDLANDGLIDING.CLUB**  
**523108N 0025233W**

WE had two Saturday evening talks in March: the first by Patrick Edwards from the National Trust and the second by Mike Groves from Skylaunch. We are hoping they will be able to join us again next season. We were fortunate to host the Aim Higher course run by Kevin Atkinson. This was an exceptionally informative and motivational weekend. The

Llanbedr visit had to be postponed, but this proved to be a good thing weather-wise. After a wet start, things improved until there were some amazing conditions allowing wave flights over Snowdonia.

**Steven Gunn-Russell**

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

FEBRUARY brought the AGM and prize-giving, following a successful 2016. John Roche Kelly stood down after seven years at the helm as chairman and was warmly thanked for his stewardship. Mike Hoy has stepped in and we wish him well. The new hangar has been named The Ivan Esgate Hangar after a treasurer of many years, whose legacy made its construction possible; this should improve access to individual gliders. Congratulations to Matt Ayling (14), following in his brother's footsteps by going solo. We are now prepared for a good flying season with the inter-club league already under way.

**Adrian and Barbara Prime**

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

A SLOW start, but things are looking up. We have booked over 50 voucher holders this year and hopefully more to come. Our K-13 has come through its annual and our Open Cirrus is in the middle of its CofA, but I'm sure it'll be back soon. Chris Jenks is working on his BI and we all wish him well. Our lengthy discussions with Hawarden air traffic have come to an end with an agreement that we can just about live with. Trophies were presented to Nigel Morris for best flight and Ken Fixter for time and effort.

**Brian Williams**

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

FREE flying! We recently held an event where we offered free trial lessons to a targeted audience of primarily young people. Whilst we remain to see if this will generate the increase in new members we hope, it has increased the profile of the club on social media, etc. The first cross-country flights of the season have now taken place and following a recent meeting with our landlords, 22 Training Group RAF, we look forward to working with them to achieve the levels of assurance equivalent to



(Left to right): Matt Ayling, 14, after first solo, with Norfolk CFI Mark Wright; Sarah Gray in Peterborough & Spalding's Puchacz; Southdown's 'Most promising young pilots of the year', twins Alex and Scott Munnoch; Bernie Svenson (right) presents Wolds' Graham Wadforth with the 'Les Cooper cup'



✈ MAA rules that they now require for gliding on an RAF airfield.

**Norman G Nome**

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

**524233N 0000834W**

WHEN the weather you have is unexpectedly agreeable, it deserves to be taken advantage of! At PSGC, we have implemented a rapid response system to inform members when mid-week flying looks promising. We are improving our launch point facilities with a new cabin vehicle and work began on laying a new apron at the front of the tug hangar, with gratitude to a generous gift from Chestnut Homes, who donated 54m<sup>2</sup> of paving. In 2017, we have focused on the increase in our membership and have encouraged more female pilots to take an interest in the sport.

**Tim Beasley**

**PORTSMOUTH NAVAL (LEE ON SOLENT)**  
**WWW.PNGC.CO.UK**

**504855N 0011225W**

MARCH saw a busy month gearing up for the summer season. One of our K-21s has come back from being re-gelled in Poland and we are expecting the second one soon after its 6,000hr check. March saw solos from Sofiane Soussi and Austin Cresdee, with Lewis Taylor completing his Bronze. Dave Hurst and Zdenek Harnik also completed their IFF ratings. Congratulations guys. The Chipmunk is back from its annual and our K-8 should be flying within the next few weeks. Fingers crossed for good weather for our Easter course and Aboyne Exped in April.

**Lee Allinson**

**SCOTTISH GLIDING CENTRE (PORTMOAK)**  
**WWW.SCOTTISHGLIDINGCENTRE.CO.UK**

**561121N 0031945W**

CONGRATULATIONS to: Mike Turner, Octavia Nef and Andrew Wilson (77) for going solo; Shashank Pratapa (Silver height); Gilby Cavanagh (Silver duration); Neil Brown (Gold); Josh Reid (Silver distance). The pundits have been at it with Tony Spirling completing his first 500km, with a remote start and finish. Kerran Dutton is cleared to fly our EuroFOX tug and we'll have aerotow launches this summer. The visitors' season has started, keeping Donna and her team busy in the restaurant. We had Silver, Gold and Diamond heights for our visitors from Dumfries & Galloway, and Devon & Somerset.

**Chris Robinson**

**SEAHAWK GLIDING CLUB (RNAS CULDROSE)**  
**WWW.SEAHAWKGLIDING.CO.UK**

**500509N 051520W**

THE club recently ran a Navy exped to Talgarth with eight members of the service. They did manage to find two usable days. We have just fitted our club Pegase and DG-505 with LXNAV S8 and S80, as well as sorted out the 8.33 radios ready for soaring season. The club fleet is up to full complement and ready for better weather to come. On a slightly sad note, we wish Jordan Richards all the best with his move to Scotland. He will be truly missed by all.

**Jake Matthews**

**SHALBOURNE (RIVAR HILL)**  
**WWW.SHALBOURNEGLIDING.CO.UK**

**512014N 0013239W**

GLIDER pilots know that the appearance of beany hats at the airfield means spring has arrived. I'm pleased to report that the headgear has been much in evidence as we have all made the most of the arrival (finally) of some decent flying weather. Scotland was the destination of choice this Easter, with expeditions to Portmoak and Aboyne. The *ab-initio* course week took place in May and was very popular. Thanks to Ken for volunteering to drive the winch.

**Claire Willson**

**SHENINGTON (EDGEHILL)**  
**WWW.SHENINGTON-GLIDING.CO.UK**

**520507N 0012828W**

SPRING is here and we've already had some cross-country days. The club has introduced a new weekend rota system and Graham Paul and Al Cook are running a cross-country initiative to encourage more of our members. We recently had our AGM and thanks must go to Andy Linfield, outgoing chairman, for all his hard work. Martin Jones has been elected our new chair, and the rest of the committee remains the same. We love having visitors, so if you fancy flying midweek contact the office, or pop in on an adhoc basis.

**Tess Whiting**

**SOUTHDOWN (PARHAM)**  
**WWW.SOUTHDOWNGLIDING.CO.UK**

**505532N 0002828W**

HARVEY Algar went solo shortly after his 14th birthday, becoming the youngest ever solo pilot at Southdown. This has been a fine example to our younger members who are beginning to make up a sizeable cohort, in no small measure due to the efforts of Haken

Andersson and Katie Simmonds. The club AGM had lots of audience participation, particularly when plans for the clubhouse refurbishment were announced. It should meet club needs without any loss of comfort and, when finished, be more than a match for the Pleasure Dome at Xanadu where Kubla Khan was CFI.

**Peter J Holloway**

**SOUTH WALES (USK)**  
**WWW.USKGC.CO.UK**

**514306N 0025101W**

OUR first really sunny weekend saw launches continue well into the evening, with many lengthy soaring flights and a host of satisfying cross-countries. After an excellent series of informative evening winter lectures, we are now planning our first club BBQ. On the airfield, volunteers have been busy rolling out the winter ruts and our recently-acquired additional Grob two-seater has increased the number of launches available to our many enthusiastic *ab-initio* pilots. Rod Weaver has stood down as our CFI after seven years, handing over to Maureen Weaver.

**Stuart Edinborough**

**STAFFORDSHIRE (SEIGHFORD)**  
**WWW.STAFFORDSHIREGLIDING.CO.UK**

**524940N 0021212W**

AFTER weeks of rain we're coming out of it, the skylarks are singing and there have already been some soaring flights. The Pawnee is being given a thorough overhaul, ARC renewals have been completed, the grass is growing, and check flights are in progress for those who've almost forgotten how to fly. This year's expedition to Llanbedr was partially successful under the influence of 'weather'. The AGM reported a successful and safe year's flying, with fees being held at the present level for the forthcoming season. There are upcoming plans for clubhouse and approach-road refurbishment, and a possible friends and family day this summer.

**Malcolm Taylor**

**SURREY HILLS (KENLEY)**  
**WWW.SURREYHILLSGLIDING.CO.UK**

**511820N 0000537W**

WITH the AGM approaching, we want to recognise the work done over the past 10 years by our outgoing chairman. Adrian Hewlett has steered the committee for a valiant stretch and has decided the time is right to stand down. The club owes Adrian

(Left to right): Currency checks: **Wrekin's** Morag Allan and Dave Judd prepare for winch launch failures in the K-21; Dave Bradbrook has qualified as a Basic Instructor at **York**; 16-year-old George Claydon goes solo at **Yorkshire**



gratitude and praise as he has overseen a largely new club fleet of gliders, a new winch, the appointment of Steve Codd as staff instructor, a four-fold increase in the number of private gliders, and a reduction in the average age of members. Thank you Adrian for your time and dedication. Now you can just enjoy flying without the other distractions.  
**Chris Leggett**

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

A HUGE well done to Ian Round and Phillipa Woods, who have both gone solo; Jonathan Salt for completing his Bronze Endorsement; and Reece Lake for going solo in the motor glider. Richard Hannigan, the club chairman, has decided it is time to enjoy his retirement and not seek re-election. Richard was instrumental in negotiating the new lease on the airfield when the MOD put it up for sale. The members would like to thank Richard for his contribution over the past three years, and wish him many more happy days flying.

**Kristina Samuels**

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

TWO of our established solo pilots are currently undertaking their Bronze badges: Ladia Prokop has been attending Bronze lectures at London GC, while Oliver Dudley-Heidkamp has been to lectures at Booker GC. Many thanks to London GC and Booker GC for opening their lecture programmes to members of other clubs such as ours. An intrepid bunch are currently making their way to Talgarth, with some hoping for their first taste of ridge soaring. Fingers crossed, the weather is looking reasonably good for a change! Our vintage rally is being held on the first Bank Holiday weekend of May.

**Chris Scutt**

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

WINTER projects have dominated Welland club activity and we are pleased to report that the fine-tuning of the winch acquired from Halton is nearly complete. CFI Paul Cronk is in the process of training up four shiny new basic instructors and thanks to Mark Jarrett, the Rallye now has a four-blade prop ready to aerotow them all! Andy Burton is stepping

down from his role as club treasurer on a high, as the recent AGR reports good news on membership numbers and finances. Thank you Andy and everyone who works so very hard, often behind the scenes, to keep the club flying. Mark Rushton, your wisdom and support is greatly appreciated.

**Rebecca Hart**

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

THERE was a full house for our annual dinner in March, with outgoing chairman Graham Wadforth reviewing another successful season and presenting the awards. We look forward to our AGM and there has been hard work by a team led by Steve Wilkinson shaping our plan for the next five years and beyond. Our K-21 GBV has returned from its refinishing in Poland, shiny as new. The Wednesday crowd celebrated Red Nose Day in style, instructor Patricia Ridger's cakes selling out. There has already been some notable soaring, including several days of good wave over the Vale of York and entries are filling up for our 32nd National Two-Seater Competition.

**George Morris**

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

THIS year's Easter expedition saw us join with friends from Midland GC and Staffordshire GC at Llanbedr; a great location with good facilities and, at this time of year, some changeable weather that saw us flying through rain, hail and snow showers to recover to the airfield. Clear skies and wave on the last two days saw flights to 12,500ft over Snowdonia. The schedule of annuals keeps the Cosford workshop busy as we prepare for our weekday afternoon and evening flying programme. This provides the opportunity for service trainees to fly after work. Finally, Colin Haynes is making good progress with his NPPL SLMG training having completed four of the nine exams.

**Geoff Catling**

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

THE first five-day basic course of the year for the Qinetiq Airmanship scheme is in the bag and, with the completion of club glider, winch and ground maintenance, it signals the start of the season for Wyvern, although the

early March weather proved challenging. The dual operation flying trials with the Air Cadet Organisation were successfully achieved in the middle of February. We await the ACO's trial report, but it's looking positive. The first Army basic course was in early April, with three more through to June, plus an Army expedition to Sisteron just round the corner. Gloriously busy soaring, cross-country and training days ahead.

**Paul Jessop**

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

WELL the big news is that not only is our new EuroFOX tug airborne, but it is already taking paying passengers. It will be a great asset to the club as we enter soaring season. We've been busy since the start of the year – congratulations to Andrew Harvie, Richard Waddington and Steve Wakeham, who have all soloed. Well done also to Dave Bradbrook, who has qualified as a BI. Thanks to Keith Batty for another well supported Bronze ground school course and to Mike Bond for his series of cross-country flying lectures. We are planning a task week w/c 15 May – an excellent chance for a number of Mike's theory students to put some of that learning into practice!

**Andy Carden**

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

DURING February/March, despite some stormy conditions and damp air-masses, we had 30 flying days. Using a mix of ridge and wave flying, many were soarable, over half having flights of an hour plus. The start of April saw sunshine and thermals return to give members and Oxford University visitors good local soaring. Chris Booker and 16-year-old George Claydon soloed ready for the season. New Becker radios and LXNAV S80 Smart Varios are being fitted as our fleet re-instrumentation programme continues. Looking forward, our early season *ab-initio* member courses are fully booked and we are to provide ad-hoc cross-country training flights for our aspiring pilots coming through.

**Ken Arkley**

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



## > CLUB FOCUS

### EAST SUSSEX

#### AT A GLANCE

##### Membership:

Full: £305  
Junior: £145  
Social: £31

##### Launch type:

Aerotow: £30 to 2,500ft  
Winch: £7.50  
Soaring: 38p/min

##### Club fleet:

3 x K-13, K-21, K-8, K-6, Valentin  
Mistral, PZL Junior and a  
Hoffmann H36 Dimona SMLG

##### Instructors/Members:

18/118

##### Types of lift:

Thermic with occasional street  
or wave

##### Operates:

Saturday, Sunday and  
Wednesday year-round, field  
conditions permitting

##### Contact:

01825 840347 (Mon-Fri 10:00  
to 13:00)  
Email [accounts@sussexgliding.co.uk](mailto:accounts@sussexgliding.co.uk)  
[www.sussexgliding.co.uk](http://www.sussexgliding.co.uk)

##### Long and Lat:

505426N 000619E  
SLMGs PPR see [www.sussexgliding.co.uk/visiting-pilots](http://www.sussexgliding.co.uk/visiting-pilots) for details

**G**LIDING began in Sussex back in 1922 from atop Itford Hill in the South Downs to the south east of Lewes. The county of Sussex as it was then has since been divided into two halves, East and West. So too was the original gliding club, into East Sussex and Southdown Gliding Clubs.

With the split, East Sussex GC was formed in 1974 and we moved to our present site, Kitsons Field, just to the north east of Ringmer, where the club owns the 72-acre field. To the south, we have an excellent view of the eastern end of the South Downs National Park and from the air the view becomes even more impressive, with a clear view of the South Coast stretching from Worthing to Hastings. Turning inland we see the Sussex Weald laid out before us and, on a clear day, we can see as far as the North Downs and beyond.

Buildings on the field include a clubhouse with private bar, two hangars and a workshop where we can tackle most maintenance tasks. There is a small group of pilots who own, fly and maintain vintage gliders, with a few

machines awaiting rebuilding back to an airworthy state.

Flying is on Wednesdays, Saturdays and Sundays and, as with most clubs, we have a core group of members who regularly show up to jump in to the air. Our team of experienced instructors are on hand to develop our members. Launching is by winch on a near 1km cable giving launches of 1,000ft plus, or aerotowing to your chosen altitude.

Sitting above us is Worthing CTMA that limits flying to 5,500ft and just to the north of the field the controlled airspace drops to 4,500ft. A little further north we run into Gatwick Airspace at 2,500ft. Thermals, streets and wave are regularly found over the field and in the vicinity. Our cross-country pilots frequently achieve two hour plus flights.

During the year, we run flying weeks for members, where participants can receive intensive training with two students per instructor. These courses cover basic, improvers and cross-country training. In the summer months, we run winch flying evenings for local groups and social clubs.

**Mike Jeater**

In a class of it's own



The new mini LAK FES Electric Self Launching Sailplane

For more information contact Ron on 07540 479204 [www.balticsailplanes.co.uk](http://www.balticsailplanes.co.uk)

**Baltic Sailplanes Ltd — Sole UK agents for Sportine Aviacija & Co**

At Nympsfield, we fly all year round - Come and join us!  
Good Thermal Sources, Convergence, Ridge Running & Wave from the Welsh mountains.

Please see our web pages for details of "Master Class" XC coaching weeks & "Task Week" in 2017.

We welcome club expeditions – our clubhouse (with bar, kitchen, lounge & bedrooms) is open throughout the year

Please contact 01453 860342: [office@bggc.co.uk](mailto:office@bggc.co.uk): website: [bggc.co.uk](http://bggc.co.uk)

1640 €

all inclusive week September-October 2017 \*

Remember, remember...  
the month of September...  
in St Auban!



[www.cnv.net](http://www.cnv.net)

\* includes :

- CNV membership
- 6 days experienced mountain gliding instruction
- 6 days glider rental
- Up to 8 tows
- 7 nights accommodation in the North building

**CENTRE NATIONAL DE VOL À VOILE** Contact Helen or Patricia : + 33 492 642 971 or [booking@cnv.net](mailto:booking@cnv.net)

# BENEFITTING AS AN INSTRUCTOR

Instructor? Me? The BGA's Lizzie Pike asks two new BIs why they became instructors and the impact on their own skills and careers



Freddie Turner (back) instructs at Bicester Gliding Club

**INSTRUCTING CAN BE VERY BENEFICIAL TO MANY PEOPLE MY AGE WHO ARE LOOKING AT GETTING THEIR FIRST JOBS**

**V**OLUNTEER instructors are the life blood of any gliding club and we are really fortunate to have so much experience occupying the rear seats of our training gliders. But, as in all areas of gliding, we need a constant flow of newly qualified people to help out.

The BGA has been looking into why some pilots are hesitant about getting involved with instructing at their clubs. It's interesting that many younger pilots don't realise that they are good enough to meet the standard

required (some of our younger pilots are amongst the best, as it happens!), older pilots don't like being tested (who does? – try thinking of it as a helpful 'assessment'), and many worry that if they become an instructor, they will be nailed permanently to a Puchacz or K-21. That last bit is a self-fulfilling prophecy as the reality is that the more instructors at a club, the less likelihood there is of that occurring. Just check out any of the growing clubs to prove the point; instructor development and instructor numbers appear to be a priority.

Quite often, cost can be an issue. Many clubs help by absorbing preparation training and some course costs in exchange for a 'bond' arrangement. Young pilots can

apply for funding, eg £500 towards Basic Instructor (BI) training or £1,000 towards assistant instructor training. There are opportunities through sports grants too.

Two glider pilots who have made quite different starts to gliding have kindly agreed to provide their thoughts on stepping into the world of gliding instructing. Freddie Turner, 17, is a keen racing pilot. Gieve Francis, 58, was looking for her next challenge in gliding. Here are their thoughts.

## **Freddie Turner, 17, from Bicester Gliding Centre**

I've been a Basic Instructor for two months and an active supporter of youth gliding within the BGA, assisting at events and promoting the STEM (science, technology, engineering and mathematics) initiative at schools in my area.

I decided to become an instructor because I get great satisfaction out of helping other people and giving them their first taste of aviation. I realised this when I used to help the lower years at school with their homework and subjects they may be struggling with. With the help of the BGA (an Air Pilots' young instructor bursary) the decision was already made; I would become a Basic Instructor. Anyway, instructors are cool, right?

When I am instructing, it gives me a great sense of pride and achievement. Knowing that I am giving people their first experience of aviation that they may remember forever, and which could spark an interest in the sport like it did for me. Furthermore, the sense of responsibility that I gain from it can be exciting. Knowing that I am in charge of the outcome of the flight, as much as it is daunting, can also be enjoyable.

Knowing that people my age are only just learning to drive and I can take people up in a plane further adds to the sense of the achievement.

More often than not, the person I am giving a trial lesson will be older than myself. Inevitably some of them enquire about my age, shocked that I am old enough to drive a car let alone take them up in a glider. In some Asian cultures age is a symbol of ability and of being wise and this can be a difficult hurdle to get over if they challenge my age. Sometimes it is safer and more prudent to give the trial lesson a better experience and ask the duty instructor for another instructor to complete the trial lesson. However, this is rare and a majority of the time people are surprised and are very willing to be taken up by someone of my age.

Looking forward, I see myself progressing

on to a higher ranking instructor, with the view to gaining my Full Cat instructor qualification.

I believe instructing can be very beneficial to many people my age who are looking at getting their first jobs, or are trying to pursue a career in aviation. As well as the responsibility of being able to teach people how to fly, the process of training, learning and then putting into practice the skills is a great foundation for any career. I believe it shows commitment and dedication and looks great on a CV. As an example, when I went for an interview at my current employer, the interview process was 10 minutes talking about my lack of experience and then 30 minutes talking about the advancements in glider design. They were very impressed with my flying experience in general, and gave me the job on the basis it showed responsibility and maturity.

I believe people view instructors with a lot of respect. I would like to think that I am a type of instructor who instils respect with the people I am instructing, while at the same time allowing them to be open with any problems through my instructional style so they wouldn't be nervous of raising any queries they might have.

**Genieve Francis, 58, from Kent Gliding Club**

I've been an instructor for three months and fit in my other interests of skiing and hockey around a love of gliding.

I discovered gliding by attending an open day at the Kent Gliding Club. One flight and I was hooked! I had been gliding for about 12 years and was enjoying it very much. Work, hockey and other commitments got in the way and left me with limited opportunities to make the most of good gliding days. I managed to maintain my skills (or so I thought) and go on a few expeditions to practise cross-country. However, over time I picked up a few poor habits and realised that I needed to refresh my skills.

I took an opportunity to retire from work early and decided to devote myself to doing the things that I enjoy most and that included spending more time at the airfield. The decision to refresh and improve my skills, and having the time to focus on gliding, gave me the inspiration to take on the BI course. It covers everything I needed to focus on and the club agreed to run a course. The preparation work started in earnest.

Another reason was that I realised that



flying with others can be fun. I always liked the solitude of flying solo, but had recently taken the opportunity to fly with other people as an equal, ie not as a student, and I enjoyed it. I enjoy meeting new people and the realisation that I could inspire others to take up gliding gave me more reason. Thirteen years ago, it had never occurred to me that I could be a glider pilot. Attending an open day at Challock showed me what I was missing. I could do the same for someone else.

I enjoyed the BI course. It was challenging and rewarding. I enjoyed the exercises and learnt a few things along the way. As a BI you are responsible for someone else during the flight and that brings a different perspective. I believe it sharpens the understanding of the potential risks and provides more focus for a safety first approach.

I recognised the trust that the instructor needs to have in their own skills, the student and the ground staff. The better the instructor, the more confident he is to allow the student to progress safely. I have a long way to go, but I've made a start.

I passed the course – and in doing so achieved the step improvement in my gliding skills that I had been aiming for. And my first BI flight with a real student was awesome – eventually!

Genieve Francis improved her own gliding skills in the process of training to become an instructor

**NEED TO KNOW MORE?**

Basic Instructor courses are run at clubs on an as needed basis. The minimum requirements are Silver badge and 50 hrs P1. If you want to know more, please have a chat with your CFI. If you are thinking of becoming an assistant instructor, again please talk to your CFI and check out the BGA website at <https://members.gliding.co.uk/courses/bga-assistant-instructor-courses/>

■ All BGA instructor rating requirements are detailed at <https://members.gliding.co.uk/library/bga-requirements-guidance/instructor-requirements/>

Colin Weyman argues in favour of a balloon at Eyres Field

# CUNNING PLAN

**R**IGHT, now for something completely different, as Monty Python used to say. (This idea of mine is in common with some of the other “scatter-brained” ideas I have seen bandied about among the ideas to update our club, so that we can obtain a longer lease.)

I have come up with an idea for cheaper launching at Eyres Field. Last year, a UK council was moaning because the observation balloon in the park was not being used enough to make it viable, and that they had received a resume from the Government stating that: *“The British Government on behalf of the European Immigration Authority had expressed concerns that they were seriously thinking of banning observation balloon flights within the UK because of the ongoing (and worldwide) immigration problem. It was widely feared that any persons trying to gain illegal entry into FRANCE, BELGIUM, OR ANY OF THE EUROPEAN COUNTRIES could organise a trip in the observation balloon when there happened to be a fairly brisk northerly wind blowing, and commandeer the balloon, forcing the balloon crew to cut the tethering rope, so that they would then be blown across the Channel. When they reached the area where they wished to land, they could progressively shoot holes in the balloon (with their Kalashnikovs, shotguns, etc) so that the balloon would descend and the perpetrators could then leap out onto their chosen promised land!”*

NOW: This is my idea... The aforementioned UK council are toying with the idea of selling the balloon for a really cheap price. If our club purchased the balloon (after all, we are a legitimately registered airfield), we could then tether the balloon at our gliding field and legitimately use it for virtually anything we wanted to.

#### **Idea one:**

We could tether the balloon at the launch-point at, say, 300ft, which would give us a birds-eye view of all the launching, while a pair of binoculars could be used to scan the field for obstructions, tyres, lost weak-links, etc, etc. (To say nothing of illicit fornication in the bushes!) But most importantly of all,



the lookout in the balloon could watch all gliders coming in on their approach to land and do a 100 per cent accurate check that the pilot was at the correct height coming through the high key position. No more: “I saw you come over the boundary at 150ft, so that’s back on check-flights!” and the pilot swearing blind that he was at “just under 300ft. So I don’t really think I need a check-flight!”

#### **Idea two:**

The balloon could be tethered at, say, 2,000ft and a knowledgeable person, ie an instructor or someone who has read any book written by Derek Piggott, could be installed in the balloon basket to look down and monitor pilots’ circuits and approaches. He could also be equipped with a camera to take pictures to show to the CFI at some later date, when he (or she) has fallen out with the pilot in question. Apparently, according to statistics, the balloon can lift a weight of about two metric tons when fully inflated (I made this up, but it sounds about right!) Therefore, this would mean that a glider could be hooked on underneath, and then the ground restraining winch could be let out until the balloon was

back at 2,000 or so feet, whereupon the glider would then release and do a normal flight.

The electricity used by the winch to pull the balloon down again would cost in the region of about £5 each time, which would then be paid to the club by the pilot. That would probably make it the cheapest type of launching EVER! (Once again, check with Derek Piggott.) Cheaper than an ordinary winch launch and much cheaper than an aerotow! (I know that a good tug pilot will do his best to take you to the best area of lift, BUT this just makes the glider pilot lazy and not bother to search around for the best lift.

#### **Idea three:**

To raise much-needed revenue for the club, every time the balloon came down it could be loaded with prospective punters, photographers and anybody else interested in gliding, who happens to be passing and is willing to pay, say, £10.

AND ANOTHER REALLY USEFUL THING... Every time our airspace was infringed (and, YES, this happens rather a lot – read Derek Piggott) a photograph could be taken of the offending aircraft’s trigraph and sent to the CAA!



# THE SOARING ENGINE VOL 2

I'VE been eagerly awaiting the second instalment of G Dale's series of books, and haven't been disappointed. In the first volume of *The Soaring Engine* G introduces us to the main forms of lift that we all use to soar: ridge and thermal, being used in both flatland and mountain soaring environments. If you haven't yet read it – do! I'd thoroughly recommend it: an invaluable soaring textbook, regardless of your experience level. The second of three books leads straight on from where volume one finishes, describing convergence and wave.

From my experience, both convergence and wave can present significant challenges to many soaring pilots, especially if like me you spend most of your time soaring quite happily in flatland thermal conditions. We do, however, come across the effects of both these soaring concepts in many of our flights, even in the UK. Sometimes we can use these to our advantage, sometimes we can't. Often it's too difficult to get a handle on what's really happening until long after you've landed (out).

To help us better understand and practically use the air we fly in, G once again draws on his mass of experience, especially in the mountain wave environments of New Zealand, to set out some effective and simple models to help explain the broad concepts of both of these complex phenomenon. He carefully leads the reader through most

variants of convergence and wave to enable the soaring pilot to build practical knowledge and use this in the real world to create a mental model of what might be happening: especially useful when things are not going to plan.

As I said about volume one, the real gem of *The Soaring Engine* is the feeling that the subject matter covered is not a theoretical idea of what should be taught in the perfect soaring book, but rather a collated set of lesson plans and white board illustrations. It isn't glossy, or filled with beautiful photos, it's a work book – practical, essential and real. G sets out broad rules of thumb to use when you're in these environments to help you understand, soar and, most importantly, survive!

G demonstrates yet again that his knowledge, and more importantly real world understanding, of how the air moves is unparalleled. Combine this with his natural teaching style, and you've once again got a must-have textbook.

**Jez Hood, Lasham GS**

■ A new version of *The Soaring Engine, volume one* is available. There is no change to text, but the diagrams have been improved. A Japanese translation of volume one has also been released, and work is in progress on a German translation of both volumes one and two.



*The Soaring Engine, volume two, Wave and Convergence* by G Dale

Paperback; 144 pages

RRP: £33 plus p&p, from [www.thesoaringengine.co.uk](http://www.thesoaringengine.co.uk)

Both volumes can also be bought from [www.bgashop.co.uk](http://www.bgashop.co.uk)

You can buy volumes one and two together for £63 plus p&p at [www.navboys.com](http://www.navboys.com)



GLIDERSERVICE NOVAK

Repair and maintenance workshop for sailplanes of composite structures specialised in **REFINISH**



- Complete refinish in Polyurethane or Polyester paint
- All kinds of repairs and modifications
- ARC renewals, 3000 hrs inspections, special inspections
- Guarantee certificate for the quality of service
- All services according to EASA regulations
- Simple order procedure, organisation of transport



At your service since 1988 – more than 1700 refinished sailplanes from all over the globe

[www.gliderservice-novak.si](http://www.gliderservice-novak.si)

# BGA CLUB ANNUAL STATISTICS

1 OCTOBER 2015 TO 30 SEPTEMBER 2016



	MEMBERSHIP					FLYING					NEW PILOTS		
	Full Flying Members	Under 21	Female Members	Temporary Members	Affiliated Members	Non-Flying Members	Winch Launches	Total Launches	Total Hours Flown	Solo	Bronze Endorsement	Cross-Country Endorsement	
Andreas	10	1	1	23	0	0	66	110	25	0	0	0	
Anglia	34	2	4	35	0	5	670	820	200	0	1	1	
Banbury	50	3	3	168	0	0	0	818	353	1	1	0	
Bannernown	77	13	6	91	8	4	3383	3827	1400	0	3	2	
Bath, Wilts & North Dorset	98	16	7	55	55	30	2082	2577	1252	6	4	3	
Bicester	146	11	16	1055	43	42	7434	9662	4609	9	9	5	
Bidford Gliding & Flying	60	6	4	183	0	12	0	915	550	0	1	0	
Black Mountains	74	7	3	356	0	2	0	1940	2076	2	3	3	
Booker	133	17	7	808	0	16	0	3411	3513	2	3	2	
Borders	87	6	2	135	0	19	0	1596	1222	0	1	1	
Bowland Forest	115	20	12	280	0	23	3237	3237	1262	7	2	2	
Bristol & Gloucestershire	155	26	18	321	21	28	3409	4347	3200	10	8	8	
Buckminster	106	15	14	364	61	0	1620	3540	1466	2	3	1	
Burn	92	11	6	96	0	12	2892	3407	1032	4	1	0	
Cairngorm	39	4	4	52	0	5	0	683	845	1	1	0	
Cambridge	183	16	10	648	542	84	5451	7149	4142	6	4	5	
Channel	26	6	2	128	0	0	776	782	116	1	1	1	
Cotswold	148	26	8	465	43	66	6523	6849	2380	14	8	4	
Cranwell	72	6	5	44	70	1	3564	3940	1120	3	4	5	
Darlington	68	9	4	196	0	2	2520	3066	1160	0	3	1	
Dartmoor	44	2	4	76	0	1	2057	2060	318	4	2	2	
Deeside	66	14	4	368	0	16	0	2428	2465	1	2	1	
Denbigh	15	3	0	85	0	50	344	714	200	0	0	0	
Derby & Lancs	134	14	5	342	0	40	4850	4850	1766	4	0	0	
Devon & Somerset	168	22	12	350	0	61	4703	5658	2142	9	1	0	
Dorset	45	4	2	119	0	11	552	1162	315	1	0	0	
Dumfries	13	2	0	15	0	4	316	316	95	0	0	0	
East Sussex	81	9	2	45	0	50	1347	2329	798	1	0	0	
Eden Soaring	26	1	1	164	0	0	1670	1670	1024	3	1	0	
Essex & Suffolk	135	25	7	351	0	10	5241	5372	1980	6	6	3	
Essex	61	4	10	79	0	4	1582	1769	440	4	0	0	
Fenland	50	0	0	14	0	0	1029	1272	405	0	0	1	
Fulmar	19	8	1	0	0	3	See Highland	See Highland	0	0	0	0	
Herefordshire	32	1	3	74	0	15	0	807	960	1	0	0	
Heron	42	17	2	25	0	2	212	740	259	6	1	1	
Highland	33	6	3	24	0	19	100	748	480	1	0	0	
Kent	109	25	6	609	0	19	1812	2551	368	6	1	1	
Kestrel	53	20	4	57	13	2	1211	1340	232	4	0	1	
Lakes	21	0	1	55	0	10	0	271	134	0	0	0	

Lasham	755	128	61	730	50	102	14996	22378	6421	23	15	14
Lincolnshire	27	4	1	128	0	4	1358	1358	194	2	1	0
London	264	30	13	478	0	37	3277	8094	6000	10	7	7
Mendip	51	4	3	200	0	3	1534	1640	396	3	0	1
Midland	103	13	6	245	0	11	5038	5123	2166	8	2	0
MotorGlide	23	3	1	65	0	0	0	500	1810	0	0	0
Nene Valley	79	27	7	261	0	13	2758	2797	772	5	1	2
Norfolk	87	13	3	293	0	16	1802	2533	1403	1	0	0
North Devon	5	0	1	62	0	2	125	125	75	0	0	0
North Wales	27	3	2	170	0	2	1478	1478	175	0	1	1
Northumbria	61	16	6	127	0	4	10	953	453	1	1	1
Oxford	70	12	4	310	5	20	2626	2626	868	4	2	3
Oxfordshire Sport Flying	80	0	3	32	0	4	0	750	950	0	0	0
Peterborough & Spalding	61	2	2	269	21	1	0	1459	859	2	1	1
Portsmouth Naval	79	6	3	125	0	12	1531	4049	1237	11	1	1
RAFSA Chilterns	71	10	5	92	57	0	1769	3679	1385	8	3	2
Rattlesden	64	10	8	119	0	23	686	2160	933	5	2	1
Sackville	2	0	0	0	0	0	0	60	30	0	0	0
Scottish Gliding Centre	274	22	9	259	54	14	5940	7908	6735	13	5	3
Seahawk	24	4	1	0	0	3	687	966	260	2	0	0
Shalbourne	63	7	5	180	0	2	2661	2661	845	1	3	3
Shenington	81	7	12	410	0	14	3392	4040	1571	14	4	4
Shropshire Soaring Group	11	0	0	10	0	0	0	99	102	0	0	0
South Wales	81	12	3	79	0	2	1261	1822	917	2	0	1
Southdown	185	27	9	346	0	53	472	3724	3056	2	4	4
Staffordshire	89	14	3	185	0	22	2510	3401	1148	2	3	2
Stratford On Avon	106	15	7	351	0	15	3970	4092	1326	3	4	2
Surrey Hills	59	5	4	193	0	7	3476	3476	669	1	1	1
The Gliding Centre	218	23	9	163	0	35	2003	4258	3200	1	1	6
Trent Valley	72	3	3	322	6	6	2548	3057	1248	3	2	2
Ulster	48	6	4	120	40	3	0	561	330	1	0	0
Upward Bound Trust	28	5	2	57	0	0	1169	1224	273	2	0	0
Vale of White Horse	17	1	1	25	50	0	0	346	210	0	0	1
Vectis	14	0	1	5	0	3	0	76	31	0	0	0
Welland	31	3	2	126	0	12	817	990	332	1	0	0
Wolds	133	18	10	559	10	36	4847	6191	2433	4	1	3
Wrekin	35	10	4	60	0	3	855	1098	275	1	1	0
Wyvern	68	4	4	174	0	5	3222	3485	892	3	1	0
York	190	23	4	374	20	8	728	2624	1350	3	6	4
Yorkshire	208	38	21	670	220	31	681	4886	3400	4	2	2
Totals	6864	926	450	16729	1389	1196	150880	221480	103034	265	150	126

Note – Air Cadet new pilots not included during 2016

**Total Flying Membership**  
**Total Club Membership**  
**Total Participants**

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/findclub/ukmap.htm](http://www.gliding.co.uk/findclub/ukmap.htm) to locate the club you require. University gliding clubs are listed at [www.gliding.co.uk/findclub/university.htm](http://www.gliding.co.uk/findclub/university.htm)

# BGA accident/incident summaries

## AIRCRAFT

Ref	Type	Damage	Date, time	PILOT Injury	P1 hours
138	K-21	substantial	13/07/16, 16:15	none/none	698

Crop landing. Flying towards the high key area from downwind, the glider flew into strong sink so the P1 took control, increased speed and headed directly towards the airfield. Judging that they would not reach the airfield the P1 decided to turn to land parallel to a treeline, but a wingtip caught in the crop while the glider was still turning. The glider was still rotating as it landed, putting a crease in the fuselage.

139	LS 7	substantial	23/07/16, 13:30	none	605
-----	------	-------------	-----------------	------	-----

Field landing groundloop. The pilot had selected a farm strip as a landing area before trying to thermal away. Returning to the strip after 20 minutes, it wasn't until the pilot was on final approach that he noticed a large bale on the edge of the strip. The pilot used the wheel brake to try to stop short and then the ailerons to lift the wing over the bale. The wheel brake lifted the tailwheel and when the other wingtip caught on the ground the glider groundlooped off the strip. The side load bent part of the undercarriage frame.

141	DG-500	minor	10/08/16, 17:00	none	3000
-----	--------	-------	-----------------	------	------

Wheel-up landing. The pilot distinctly recalls performing pre-landing checks and moving the undercarriage lever, he suspects that he may not have locked the wheel down.

142	Nimbus 2	minor	10/08/16, 12:45	none	400
-----	----------	-------	-----------------	------	-----

Undercarriage retracted during the landing ground run.

145	Puchacz	substantial	13/07/16, 16:05	none/none	1362
-----	---------	-------------	-----------------	-----------	------

Glider landed in crop field adjacent to the airfield during training flight. No further details.

150	Cirrus	substantial	06/06/16, 12:00		
-----	--------	-------------	-----------------	--	--

Aborted aerotow take-off. During the ground run, the right wing went down and the glider started to turn to the right so the pilot released. There is some suggestion that the wingtip wheel caught in a crack in the runway, the glider continued to turn until it struck the hedge bordering the runway. The left wing, fuselage and airbrake crank were damaged. The pilot had no recent aerotow experience in a C of G hook only glider.

151	K-21	substantial	25/08/16, 17:55	none/none	1150
-----	------	-------------	-----------------	-----------	------

Glider hit trailers. The flight was planned to include a crosswind landing on an unusual part of the airfield. The crosswind had a downwind component and the P1 was unable to steer the glider away from the trailers after landing. The port wing struck one trailer, yawing it round until the nose struck and damaged another trailer. Fatigue and dehydration at the end of a long hot day cited as factors.

155	Mosquito	substantial	10/09/16, 14:40	none	252
-----	----------	-------------	-----------------	------	-----

Competition field landing accident. The pilot rejected his first field after noticing cattle and then realised his alternate field had power lines on the approach. Overflying the power lines meant landing long, the ground run continued onto a down slope which took the glider over some rough ground and into a fence, breaking the fuselage aft of the wings. It was only after landing that the pilot realised that there was a significant tailwind component to his chosen landing direction.

158	SHK 1	substantial	11/09/16, 13:30	none	497
-----	-------	-------------	-----------------	------	-----

Heavy landing damaged internal bulkhead and tailwheel. The glider dropped to the ground from about 5ft agl, landing tailwheel first.

159	Duo Discus	minor	30/07/16, 16:30	none/none	1520
-----	------------	-------	-----------------	-----------	------

Field landing accident. The glider landed in a field while it was being harvested. Although it landed on the cut part of the field a wingtip caught in the crop, yawing the glider, removing a wingtip wheel and scratching the underside of the wing.

160	Grob 102	minor	08/08/16, 12:30	none	3
-----	----------	-------	-----------------	------	---

Canopy came open at the start of the aerotow, damaging the screen and frame. It was the pilot's first flight in a single-seat glider and he reports that he may have unlatched the canopy while closing the DV panel immediately prior to taking off. During the accident the nose of the glider was scraped along the runway, damaging the underside. The CFI's report states the club policy of using a nosewheel variant of the Grob 102 for first flights.

161	Ximango	substantial	20/09/16, 13:20	none/none	not reported
-----	---------	-------------	-----------------	-----------	--------------

Tailwheel fork sheared off after an otherwise normal landing.

## Incidents

140	DG-500	none	09/08/16, 16:00	-	-
-----	--------	------	-----------------	---	---

Rear canopy opened during flight. Engine vibration combined with inadequate friction in locking mechanism suspected. No further occurrences after adjustment to the rear canopy closure mechanism.

## BGA accident/incident summaries *continued*

### AIRCRAFT

Ref	Type	Damage	Date, time	PILOT Injury	P1 hours
143	K-21	substantial	13/08/16, 16:00	-	-
Canopy locking arm mount broken away from canopy frame. The locking handle had caught on the pilot's parachute as the pilot exited the glider.					
144	K-21	none	14/08/16, 09:30	-	-
Loose batteries discovered during DI. A slightly smaller battery had been inserted with soft cloth packing on top to fill out the space under the clamp and as the packing compressed the wing nut holding down the clamp securing both batteries was able to work loose.					
146	K-21	none	06/07/16, 19:10	-	-
One airbrake failed to extend, the P1 took control and flew a no airbrake, sideslip approach. The L'Hotellier connector balls were inspected and found to be within tolerance, so a rigging error is presumed, although the glider had flown 92 flights over 16 flying days since last being rigged.					
147	Falke	none	11/07/16, 14:15	-	-
Engine stopped as the throttle was opened during a touch and go and could not be restarted. It was discovered that the throttle arm on one of the carburettors was slightly bent and catching on the side of the carburettor, holding the butterfly valve closed. The engine had previously been difficult to start and would not open up until the throttle lever was at least half open.					
148	SZD 30	minor	10/08/16, 09:40	-	-
After excess play was noticed in the elevator during a DI, a nut was found near the rudder hinges and it was discovered that a bolt connecting the elevator control to the elevator was missing.					
149	LS4	minor	13/08/16, 11:00	-	-
As the trailer jockey wheel was unlatched the trailer tongue dropped to the ground, lifting the rear of the trailer. Part of the trailer hit the fuselage nose, perforating the skin.					
152	-	-	17/08/16, 18:20	-	-
Light aircraft flew over an active gliding site at an estimated 500ft agl.					
153	K-21	none	27/08/16, 16:45	-	-
Introductory flight field landing. After releasing from the aerotow the instructor turned downwind towards a promising looking cloud, but did not find any lift. Too low to return to the airfield, the instructor chose to land in a field.					
154	Puchacz	none	29/08/16, 17:00	-	-
The glider overran the aerotow rope while the tug was taking up slack. The rope was picked up by the nosewheel and wrapped around the axle before the launch was stopped.					
156	Alliance	none	10/09/16, 10:55	-	-
Rejected aerotow take-off during introductory flight. The P1 was concerned at the slow rate of climb as the treeline approached at the end of the airfield so he released the rope and made a safe landing in an adjacent field.					
157	K-13	none	11/09/16, 15:45	-	-
Winch cable caught on runway marker. The glider had just reached the full climb attitude when the cable snagged under a metal helicopter landing area marker on a post attached to a concrete base. The nose of the glider was pulled down and when the pilot raised the nose the cable back released. The cable may have been previously retrieved too close to the marker, the glider may have drifted slightly, a combination of both may have allowed the cable to catch under the marker.					
162	PA 25	none	11/09/16, 13:40	-	-
Engine stopped during aerotow due to fuel starvation. The tug had been parked adjacent to the fuel pump in readiness for refuelling when the tug pilot took a break. After his break he started the engine, taxied to the launchpoint and started the next tow having forgotten to refuel. The glider was able to soar away while the tug glided to a safe landing. Fatigue and dehydration cited as factors, no other tug pilots being immediately available to allow the pilot a longer break.					

During BGA Club Safety Officer seminars it was proposed that, to further encourage reporting, it would be a good idea to remove site names from summaries. This has been reflected in the summaries on these pages. Edward Lockhart continues to provide a little extra detail, where available, in these listings. 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](mailto:editor@sailplaneandgliding.co.uk) or by post to the address on p3.





Hütter H17 on a winch launch during the 2016 Lasham Vintage Task Week (Paul Haliday)

## Take to the skies at Lasham

THE Lasham Vintage Glider Group hopes to repeat the success of the 2016 Vintage Task Week this year, from 27 August – 3 September.

Around 30 pilots took part last year, flying in 23 different gliders. Highlights included Gary Coppin and Andy Aveling's flight in the Gliding Heritage Centre's Steinadler, completing just over a 200km triangle. Justin Wills flew his 1937 Rhönbussard from Lasham to turn the Long Mynd and then soared back to Nympsfield, while Richard

Moyses completed a 300km out-and-return in his Slingsby Sky.

This year's task week follows on immediately after the 19th FAI European Gliding Championships, being hosted this year at Lasham from 10-26 August.

Vintage glider pilots, both in the UK and abroad, are invited to take part in the vintage task week. For further information, contact Peter Bunnage, +44 7754 515791, [peter.bunnage@icloud.com](mailto:peter.bunnage@icloud.com)



The Gliding Heritage Centre's Oly 2b comes in to land. Zoe Mallam's flight in this glider earned her the Geoffrey Stephenson award for most meritorious flight of the 2016 task week (Paul Haliday)

## BGA BADGES

No.	Pilot	Club (place of flight)	Date
<b>Gold Badge</b>			
	Neil Brown	SGU	22/02/2017

<b>Silver Distance</b>			
	Kieren Macgregor	Deeside (Aboyne)	19/02/2017
	Sammy Venables	London	21/07/2016
	Jonathan Jones	Darlington (Tibenham)	26/08/2016

<b>Cross Country Endorsement</b>			
	Stephen Jones	Essex & Suffolk	15/02/2017
	Stefano Borini	Cambridge	17/02/2017
	Andrew Barr	Edinburgh Uni	11/03/2017
	Geoffrey Dailey	Midland	09/03/2017
	Artur Klapa	Burn	21/03/2017
	Alistair Webb	Fulmar/Kestrel	02/04/2017
	Jonathan Hill	Surrey Hills	04/04/2017
	Ollie Sleight	Cambridge	07/04/2017
	James Baxter	York	05/04/2017
	Bryon Smee	Dumfries & District	05/04/2017
	James Walker	Buckminster	10/04/2017

## INSTRUCTOR RATINGS

Pilot	Club	Date
<b>Basic</b>		
Dinant Riks	Bicester	03/03/2017
David Bradbrook	York	03/03/2017
Chris Harrison	Lasham	03/03/2017
Christopher Morris	Bidford	09/03/2017
Oliver Chubbock	Chilterns	20/03/2017
Jonathan Pring	Lasham	24/03/2017
Daniel Ulyatt	Cranwell	24/03/2017
Toby Evans	Cranwell	24/03/2017
Paul Field	Booker	11/04/2017
Samuel Hepburn	Portsmouth	12/04/2017

<b>Assistant</b>		
Michael Edwards	Bannerdown	09/03/2017
Christopher Gill	Denbigh	07/04/2017
Robert Hubrecht	London	07/04/2017
Michael Jardine	Dartmoor	07/04/2017

<b>Full</b>		
Michael Witton	Midland	03/03/2017
Timothy Davies	Cranwell	16/03/2017
Geoffrey Forster	Borders	16/03/2017
Eric Hibbard	Anglia	22/03/2017
Neill Atkins	Cranwell	07/04/2017
Stephen Thompson	Yorkshire	07/04/2017

■ S&G is delighted to recognise the achievements of those joining the ranks of instructor in this new regular feature.

## General Aviation Legal Consultant



**TIM SCORER, MRAeS, Aviation Solicitor and current PPL provides legal advice and assistance to a wide variety of GA clients. He has been credited with "an unsurpassed knowledge of UK General Aviation" and "a very realistic and affable approach as well as good client instincts". The application of his technical knowledge underlies a service based on sound legal experience.**

Tim.scorer@kennedyslaw.com  
Mobile phone: +44 07860 557766  
Direct: +44 0 207 667 9372

Based at 25 Fenchurch Ave. London EC3M 5AD

diana2sailplane.co.uk

*Diana 2*

## Classifieds

Please send the text of your classified advert to Debbie Carr at the BGA office (not to the editor) - [debbie@gliding.co.uk](mailto:debbie@gliding.co.uk) Call 0116 289 2956 if you have any queries about classified adverts.

Please remember that, if you are emailing text, your advert may not appear unless we have received payment by post or credit card by the deadline. The deadline for classifieds to be included in **June/July 17** is **6 July 2017**.

Text: 80p/word, minimum 20 words (£16).  
Black and white photographs: £6 extra. Box number: £3 extra. All prices include VAT.

## Gliding Holidays Down-under?



Rated by G Dale as 'the perfect place for badge flying', Lake Keepit Soaring Club has everything you need for a great holiday with all the flying you can take.

5-10,000 cloudbase (AGL), 4-10 knot thermals and varied terrain mean 300 km flights are possible in *our* winter! With safe outlanding options and open airspace, most pilots only need a check flight to go solo in one of the club's excellent single-seaters. Surely there's no better place to spend a Pommie winter?

LKSC is a club, so charges for aircraft and our range of great accommodation are affordably low. English is spoken and the natives are friendly! Visit our website or email the club for the full story.

[www.keepitsoaring.com](http://www.keepitsoaring.com)

Tel: +612 6769 7514  
[enquiries@keepitsoaring.com](mailto:enquiries@keepitsoaring.com)

### FREE

**S&G MAGAZINES** from mid-50s to 2016 surplus to requirements. Very few missing and some duplicates. The smaller mags are in fair to good condition, the current size are excellent. Available FREE to anyone prepared to hang on to these for posterity - it would be a shame to recycle them. Will make available in sizable batches, but not odd copies. Arrange collection from Sutton Bank, Harrogate area, or Northants.

Phil Lazenby: 07767 155760  
[phillazenby@onetel.com](mailto:phillazenby@onetel.com)



### Motor Glider For Sale

Slingsby T61F G-BUGW and T Hangar if req. Engine Hrs: 1446  
Airframe Hrs: 7246  
Located Hinton-in-the-Hedges Airfield. £6,000  
Contact Tel. 01280 706272  
email: [tompft@aol.com](mailto:tompft@aol.com)



## life cover for glider pilots

Glider pilots can often face expensive premium loadings when applying for life cover.

In the vast majority of cases we can secure standard rates and this includes aerobatic and competition flying.

- Life assurance for your family, mortgage or business
- 24/7 cover including flying
- Cover can be arranged over the phone

**stein pilot insurance**



FREEPHONE  
0800 5999 101  
[www.flyingcover.co.uk](http://www.flyingcover.co.uk)

## Bronze & Beyond Brush up your knowledge!

The book that tells you what every British cross-country pilot should know.

Available from BGA, larger gliding clubs & direct from:

[www.mccullagh.biz](http://www.mccullagh.biz)

## BGA Courses and Seminars in 2017

**BGA maintainer, inspector, club safety officer, instructor and examiner courses and seminars are detailed at**

<https://members.gliding.co.uk/courses/>

**Bookings should be made via the BGA office  
0116 289 2956 or [debbie@gliding.co.uk](mailto:debbie@gliding.co.uk)**





## Great Winter Gliding Holidays in South Africa

### The Country

Magnificent Scenery and Unique Wildlife

No jet lag - Same Time Zone  
as Central Europe

Convenient overnight flights  
to Cape Town and Johannesburg

### The Site

Friendly Club Atmosphere  
Good airfield facilities

World Class Guest Houses  
within 4km's of the airfield

### The Gliding

Ideal cross country environment  
Strong thermals, high cloud bases  
and safe outlanding conditions

Excellent fleet of well equipped gliders

Daily Met Briefings  
Task Planning and Guidance

Comprehensive post flight analysis

**ASW27b, JS1 and Duo Discus now in Fleet**



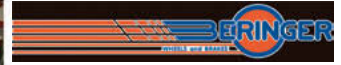
[www.soaring-safaris.com](http://www.soaring-safaris.com)

[rbradley@telkomsa.net](mailto:rbradley@telkomsa.net)

Dick Bradley : +27 83 280 1028



**Specialist Sailplane  
& Sport Aircraft  
Repair &  
Maintenance Centre**



**Beringer wheels & brakes  
sales & service' centre**

## **Bristol & Gloucestershire Gliding Club Nymphsfield, Nr. Stonehouse, Gloucestershire GL10 3TX**

Tel: Workshop (01453 860861 - Home (01453) 823319 -  
Mobile 07850 769060 - Email: [sailplane@btconnect.com](mailto:sailplane@btconnect.com)  
Web: [www.targettaviation.com](http://www.targettaviation.com)

## SAILPLANE & GLIDING



### **Six issues for the price of three!**

Subscribe to *S&G* today by Direct Debit and you will receive six copies of *S&G* for the price of three - that's just £12.88 for the first year of your DD subscription. Subscribing to *S&G* costs just £25.75 for one year (six issues) for UK-based pilots. THAT'S LESS THAN THE COST OF A SINGLE AEROTOW!

[www.sailplaneandgliding.co.uk](http://www.sailplaneandgliding.co.uk)

Photo: Alastair Mackenzie

*Winch and aerotow launches seven days a week?*

*Bookable training seven days a week?*

*2:1 trainee to instructor ratio?*

*All glass fleet?*

*Where else? 01767 677077 [www.camgliding.uk](http://www.camgliding.uk)*

*Cambridge Gliding Centre*



**NORTH YORKSHIRE SAILPLANES**  
*dereknysailplanes@onebillinternet.co.uk*



TEL: 01845 524107 MOBILE: 07711 889 245  
NORTH YORKSHIRE SAILPLANES, THORPEFIELD, SOWERBY  
THIRSK, NORTH YORKS YO7 3HH



AIRBORNE COMPOSITES

GROB

HpH sailplanes UK

Tel: 01985 840981 (Workshop)  
or 01985 841125 (Home)  
Mobile: 07778 963277

Tim@Airbornecomposites.co.uk  
The Hangar, Wing Farm, Warminster, Wilts BA12 7DD

**Soaring (Oxford) Ltd**


UK Supplier for all Grob aircraft including full support for all Grob gliders.

Suppliers of all general gliding and winching parts and accessories including everything from tyres and instruments to weak links and a huge stock of metric nuts, bolts, washers and fasteners.




01636 525318  
support@soaringoxford.co.uk  
www.soaringoxford.co.uk

Specialists in supply of **TUG and GLIDER PROPELLERS**



Skycraft, the Service Centre for **Hoffmann Propeller**, has a wealth of experience in installation, support & maintenance of general aviation propellers.

**SKYCRRAFT** Propulsion Systems for Land, Sea & Air  
| Skycraft Services Ltd | Tel: 01763 852150 | Email: customerservices@skycraft.uk.net | [www.skycraftservices.co.uk](http://www.skycraftservices.co.uk) |

**INDEX TO DISPLAY ADVERTISERS**

AeroExpo UK	70
AFE/RD Aviation	inside back cover
Airborne Composites	74
Anthony Fidler	25
Baltic Sailplanes	61
Black Mountains	24
Bristol & Gloucestershire GC	61
BGA	IFC + 51 + 72
Cambridge GC	73
Centre National de Vol á Voile	61
Diana2sailplane	72
East of England	19
Forbes Brokers	22
GASCo Flight Safety	36
Gavin Wills	22
Glider Service	65
Hayward Aviation	18
Hill Aviation	36
HpH Sailplanes	36
John McCullagh	72
Kennedys Law	72
Lake Keepit	72
LJ Panels	33
North Yorkshire Sailplanes	74
Oxfordshire Sportflying	25
Philip Wills Trust	32
Roger Targett Aviation	73
Skycraft Services	74
Soaring Oxford	74
Soaring Safaris	73
Southern Sailplanes	back cover
Stein Financial	72
Sydney Charles Aviation	32
Trig Avionics	22
Zulu Glasstek	30

*Sailplane & Gliding's* cover and entire contents are the copyright of The British Gliding Association. Nothing herein may be republished in any medium or format, in whole or in part, without explicit prior written permission from the publisher. Views expressed herein are not necessarily those of the BGA, nor of the editor. The publisher reserves the right to accept, reject, discontinue or edit any advertising offered for publication. Publication and/or inclusion of advertising is not an endorsement, qualification, approval or guarantee of the advertiser or of the service or product advertised. Readers are advised to make their own enquiries in respect of advertisers they may use.

**1:250,000 England South aeronautical chart, 2017 edition**

**NEW**



The 1:250,000 scale chart series features a detailed topographical base optimised for visual navigation at lower levels, providing topographic, cultural and other features necessary for visual navigation at slower airspeeds and below 5000ft. High ground is emphasised with colour tinting and terrain contours are shown above 200ft AMSL at 200ft intervals, selected spot heights are shown above 200ft AGL. Obstacles above 300ft AGL are depicted, as are power transmission lines, with specific annotation of power lines which are higher than 200ft AGL.

Aeronautical information includes airfields and other aviation sites, radio navigation aids, radio frequencies, hazards and danger areas. Airspace information (including controlled airspace, designated airspace and advisory areas) is depicted from the surface up to 5000ft AMSL or FL55 where appropriate.

The 2017 1:250,000 England South chart (ed 21) was released on the 27th April.

Quickfind: ENGSOUTHED21 **£15.99** D

**2017 1:500,000 VFR chart series**

Chart name	Current edition	Date	(Next edition due)
North Scotland West	9	18 Aug 2016	(13/09/2018)
North Scotland East	9	21 Jul 2016	(16/08/2018)
Northern Ireland	9	17 Sep 2015	(20 Jul 2017)
The Borders	10	26 May 2016	(24/05/2018)
Central England & Wales	11	23 Jul 2015	(22 Jun 2017)
England East	12	28 May 2015	(25 May 2017)
West & South Wales	10	20 Aug 2015	(17 Aug 2017)
<b>England South</b>	<b>21</b>	<b>27 Apr 2017</b>	

**2017 UK VFR Cockpit Companion**

Fully revised and updated for the Standard European Rules of the Air (SERA) as enacted in the UK, this an indispensable checklist containing all the vital in-flight information that pilots need at their finger tips whilst in the cockpit. With 20 checklist pages in full colour, tabbed for quick reference and with a spiral binding for maximum ease of use, the UK VFR Cockpit Companion means that no pilot needs to be at a loss for a vital piece of information.



**Data in the 2017 UK VFR Cockpit Companion includes:**

- Marshalling signals
- Ground signals\*
- Taxiway and runway markings
- ATC and radio procedures
- Transponder codes
- Rights of way\*
- Low flying rules\*
- VFR minima\*
- VOLMET and ATIS
- Wind drift ready reckoner
- Descent calculator
- Circuit joining procedures
- Sunrise and Sunset
- Emergency procedures
- And much more!

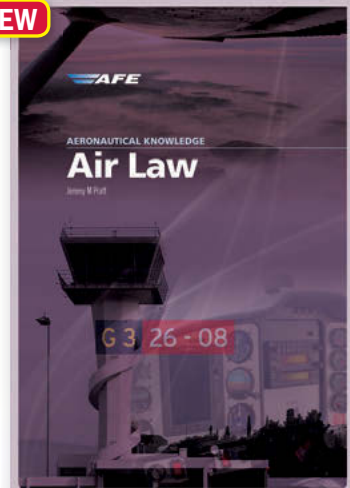
\* indicates rules which have changed significantly with the introduction of SERA in the UK

Quickfind: VFRCC2017 **£8.95** C

**Aeronautical Knowledge - Air Law**

*Aeronautical Knowledge - Air Law* is the first of a brand-new series of training manuals, designed from the beginning to take full advantage of modern methodology in aviation training. Rather than merely making revisions to an existing publication, AFE has produced a totally new training manual for Air Law, fully aligned with the 2015 EASA PPL and LAPL syllabi and offering the pilot a comprehensive understanding of modern air law and how to apply aviation procedures, rules and regulations in practice.

**NEW**



This is the only fully up-to-date Air Law book, it incorporates the Standardised Rules of the Air (SERA), the 2015 UK Rules of the Air Regulations and the 2016 Air Navigation Order (released 25th August 2016).

Quickfind: AKAIRLAW **£14.95** A



All prices include UK VAT

**AFE OXFORD**

The UK's largest pilot shop. Opposite Oxford Airport, 10 minutes from Junction 9 of the M40



SAT NAV: OX5 1FQ

[www.afeonline.com](http://www.afeonline.com)

1000'S OF PRODUCTS AVAILABLE ONLINE

Opening Hours (local):  
Monday - Friday 09:00-17:30  
Saturday 09:00-16:00

Tel: (0) 1865 841441

Fax: (0) 1865 842495

e-mail: [tech@afeonline.com](mailto:tech@afeonline.com)

AFE Oxford Pilot Shop  
Unit 2 Chancerygate Business Centre,  
Langford Lane, Kidlington, Oxford OX5 1FQ

- Supply
  - Maintain
  - Repair
  - Certify
- Membery Airfield,  
Lambourn Woodlands,  
Hungerford,  
Berkshire RG17 7TJ

tel\_ 01488 71774 fax\_ 01488 72482  
evenings\_ 01488 668484  
mobile\_ 07774 429404  
email\_ office@southern sailplanes.com

# Summer is coming...

Long warm days under a classic British soaring sky... what could be better? Perhaps it's the ability to get home in time for the barbeque, when things don't quite go to plan...

The Discus 2c FES and the new Ventus Sport FES match their world leading aeronautical designs with the safety and convenience of a Front Electric Sustainer. The order books for these two remarkable Sailplanes are filling up fast, so don't get left behind.

For more information on the Discus 2c FES, the New Ventus Sport FES or any other Schemp-Hirth masterpiece, please contact Philip Jones: [phil@southern sailplanes.com](mailto:phil@southern sailplanes.com)

