

VOL. 71 NO.2

SAILPLANE & GLIDING

COULD YOU SAFELY
ESCAPE A MID-AIR
COLLISION?

THE EYE CAN LIE:
WHERE TO LOOK

AVOID TUG UPSET
- DON'T DROP
THE PILOT

AGILE AS 33

Maiden flight of a 'fearsome competition weapon'

£4.50



The BGA Shop



www.bgashop.co.uk

Going to the Alps?



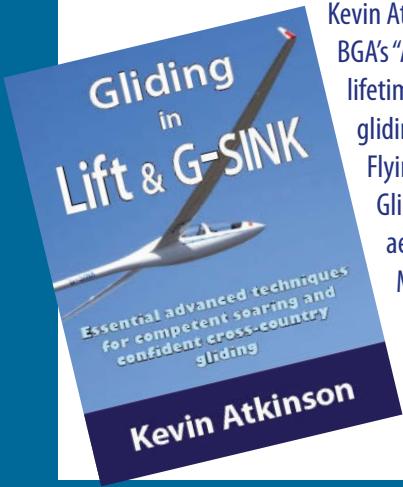
“Dancing with the Wind” by Jean-Marie Clément



All about the theories of the formation of waves, from Queney to Scorer, including atypical waves and Hydraulic Jumps (Bidone's jump). Specific techniques to use lee waves, especially non conventional ones. Theory and application of the "Speed-To-Fly" concept in strong winds.

£37.50

“Aim Higher” with Gliding in Lift & G-SINK



Kevin Atkinson, the man behind the BGA's “Aim Higher” program has a lifetime of experience in aviation, but gliding is his first love. A former Chief Flying Instructor at the Humber Gliding Club, he has flown in aeroplanes as diverse as the Tiger Moth and the Typhoon! His flying career started with the RAF in 1972, at the age of twenty, and ended in 1993.

£39.95

**SEARING SEASON
IS UPON US!**

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



Don't forget your FR 300

FR300 is a small personal flight recorder device that has built-in antenna, rechargeable battery and a large memory, and is equipped with simple but powerful Logbook. FR300 is registered in 5 countries for Silver and Gold FAI badge flights only. No calibration of the device is required.



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

Come see us at **Bicester airfield** or

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



CONTENTS

- 04** BGA NEWS
- 06** YOUR LETTERS
- 08** OPINION
- 09** BGA TROPHIES
- 20** FLYING WING
- 26** GLIDING GALLERY
- 28** DIAMOND WAS WORTH A WAIT
- 32** ARCUS SPEED FLIGHT
- 35** KEEPING UP
- 36** LANDOUTS: FROM HEAVEN OR HELL
- 38** WOMEN'S WORLDS
- 62** THE TROUBLE WITH TOMMY

CLUB

- 44** BGA CONFERENCE AND AGM
- 50** DEVELOPMENT NEWS
- 51** LAPL MEDICALS
- 52** CLUB GALLERY
- 54** CLUB NEWS
- 60** CLUB FOCUS: BATH, WILTS & N DORSET
- 61** VINTAGE GLIDING
- 66** ACCIDENT/INCIDENT SUMMARIES
- 70** OBITUARIES
- 70** BGA BADGES
- 72** CLASSIFIEDS
- 74** INDEX TO ADVERTISERS

FEATURES

10 BALE OUT!

Could you safely escape from a mid-air collision? **G Dale** explains why you must be prepared before it happens to you

14 LOOKOUT: HOW THE EYE CAN LIE

Paul Sheffield continues his article on lookout with advice on where we, as glider pilots, should be looking

21 AGILE AS 33

Bernard Eckey reports on a 'fearsome competition weapon' as Schleicher's AS 33 makes its maiden flight

64 AVOIDING UPSET

'Don't drop the pilot' is the message from the BGA Safety Committee. An aerotow is formation flying and demands skill and attention. You have the tug pilot's life in your hands



MEMBER OF THE ROYAL AERO CLUB AND THE
FEDERATION AERONAUTIQUE INTERNATIONALE




**THE MAGAZINE OF
THE BRITISH GLIDING
ASSOCIATION**
APRIL/MAY 2020 VOLUME 71 No 2

EDITOR: SUSAN NEWBY
C/O BRITISH GLIDING ASSOCIATION,
8 MERUS COURT, MERIDIAN
BUSINESS PARK, LEICESTER LE19 1RJ
EMAIL: EDITOR@
SAILPLANEANDGLIDING.CO.UK
EDITORIAL TEL: 01763 246657



COVER STORY
Schleicher's AS 33 made its maiden flight on 23 January. Feedback is that the development team has done a fantastic job. The glider is suitable for early-solo pilots, but is also a 'fearsome competition weapon' (Manfred Münch)

DEADLINES

June/July 20
Articles, Letters, Club News:
Display advertisements:
Classifieds:

6 April
20 April
6 May

Aug/Sept 20
Articles, Letters, Club News:
Display advertisements:
Classifieds:

4 June
22 June
7 July

© British Gliding Association 2020
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

www.gliding.co.uk

email: office@gliding.co.uk
To advertise in S&G: Debbie Carr
debbie@gliding.co.uk

To subscribe to S&G:

office@gliding.co.uk
Or subscribe at www.sailplaneandgliding.co.uk/subscribe
UK £25.75 Overseas airmail £41.50

› Congratulations to Terry Delore, who has recently set a new Free Out-and-Return world record for the 15m Class, with a 1,730km flight in New Zealand. Look out for a full article on this flight, that started at Omarama on New Zealand's South Island, crossed over the Cook Straight and into the North Island before turning around, in the next issue.

› Czech Republic's Radek Zimer flew three 1,000km in three days in an HpH Shark from Veronica, Namibia. The flights were on the 13/14/15 January.

› Congratulations to Ed Downham on a new National 15m Class 500km Out-and-Return speed record. On 30 November, Ed flew at 157.14km/h over 500.7km from New Tempe, South Africa.

› Congratulations to Jake Brattle for a new National Open Class 1,000km triangle speed record. On 28 November, Jake flew at 155.72km/h over a 1,002.4km triangle from New Tempe, South Africa.

› International Women's Day, 8 March, was marked at Sywell with an aerobatic display by Northampton-based women's display team Blades. WomenGlide UK's Liz Sparrow was there, representing gliding and the DfT.

› The FAI has announced the cancellation of the 2022 FAI World Air Games, due to take place in Turkey, because of the current difficult economic situation.

› Congratulations to Chris Barrott, who has been awarded Cambridge GC's Alex Ward Memorial Fund to help him improve his cross-country and competition flying at the Gransden Regionals and Cloud Rally. This annual award encourages young Cambridge pilots under the age of 25 to enter competitions and undertake more adventurous flying.

› We regret to announce the death of Sam St Pierre at the end of last year. A full obituary will feature in the next issue. The wake is on the evening of 18 April at Sutton Bank. Please contact the Yorkshire GC office if you wish to attend: enquiry@ygc.co.uk

› The Guild of Aviation Artists' annual exhibition of aviation paintings will be held at The Mall Galleries, near Admiralty Arch, London, from 20-26 July. Last year the Margaret Kahn Trophy, for best gliding-related oil painting, went to Martin Bleasby for 'Training Day'. For more information, visit: www.gava.org.uk



Wolds on TV with David Jason

SIR David Jason and Wolds GC instructor Dave Holborn (second left) are pictured above filming at Elvington for the episode of More4's *David Jason's Great British Inventions* on flight, which looked at Sir George Cayley's contribution to gliding. Dave was the ideal person to fly with David Jason as he'd flown the modern Cayley replica for the BBC's *The One Show* nine years ago (*Cayley glider returns to the sky*, S&G, Aug/Sept 11). Dave made the cover of S&G on that occasion.

DATES

NATIONALS, REGIONALS AND OTHERS

FAI SGP practice	Denbigh	18-24/5/20
15m Class Nationals	Hus Bos	13-21/6/20
Standard Class Nationals	Hus Bos	13-21/6/20
Open Class Nationals	Hus Bos	13-21/6/20
Competition Enterprise	Milfield	4-11/7/20
Club Class Nationals	Nympsfield	4-12/7/20
Worlds	Germany	19-31/7/20
Open, 18m and 20m multi-seat Classes (Stendal-Borstel)		
18m/20m Class Nationals	Lasham	8-16/8/20
Worlds	France	8-22/8/20
15m, Standard and Club Classes (Chalons-Ecury sur Coole)		
Junior Nationals	Aston Down	22-30/8/20
Two-seater comp	Pocklington	23-30/8/20
UK Mountain Soaring Champs	Aboyne	6-12/9/20
10th World Sailplane Grand Prix	St Auban, France	9/21
Glider aerobatic competitions		
Dan Smith	Dunstable	4-5/4/20
Saltby Open	Saltby	10-12/7/20
Worlds	Poland	22/7-2/8/20
Nationals	Saltby	3-6/9/20

SHENINGTON REGIONALS

27/6-5/7/20

BIDFORD REGIONALS

4-12/7/20

BOOKER REGIONALS

11-19/7/20

BICESTER REGIONALS

25/7-2/8/20

HUS BOS CHALLENGE CUP

18-26/7/20

YORKSHIRE REGIONALS

2-8/8/20

GRANSDEN REGIONALS

8-16/8/20

INTER-SERVICES REGIONALS

22-30/8/20

DUNSTABLE REGIONALS

22-30/8/20

COTSWOLD REGIONALS

22-30/8/20

■ BGA Club Management Conference, Sunday 22 November 2020 at de Vere Staverton, Northampton

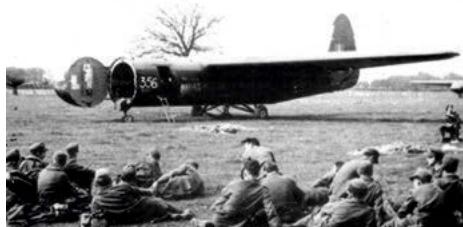
COMMEMORATING A RECORD OPERATION

AN EVENT was held in Essex on 24 March to mark the WW2's Operation Varsity.

At the beginning of March 1945, a battered German army had its back to the Rhine. On 10 March, relief came in the form of a heavy rainstorm and the army crossed into the Fatherland blowing the bridge behind them.

The Ardennes Offensive put on hold a plan to strike at the heart of Germany in January. Now a combined river and airborne operation was put in place. The code name for the latter was Varsity and would be executed by the British 6th and US 17th Airborne Divisions. The 6th would take and hold the outskirts of the village of Hamminkeln and high ground overlooking the river. The 17th would take and hold the environs of the town of Wesel.

The Glider Pilot Regiment (GPR), a unique unit of soldier volunteers, now



Horsa Mk II, which carried an artillery gun and jeep (Army Flying Museum)

strengthened with RAF pilots brought in following the GPR's losses in the battle for Arnhem, would carry 6th Airborne's vehicles, guns, tanks and the men of its Airlanding Brigade in Horsas and Hamilcars.

The 24th March dawned bright and, for the most part, the flight to Germany went without incident. On arriving at the river, the pilots found a huge smokescreen obscured their view of the ground. There are many stories of the trials and tribulations of getting on the ground.

Within a couple of hours, all objectives had been taken and held on to tenaciously. Skirmishes occurred up and down the front through the night and the Allied advance soon became a pursuit.

Operation Varsity still holds the record as the largest single-lift airborne operation, with some 3,000 aircraft - gliders, tugs and paratroop transports - taking to the skies over Eastern England and France.

A commemoration event took place on 24 March at Marks Hall Estate, Essex, the HQ of 296 and 297 Squadrons RAF which were based at nearby Earls Colne, along with B Squadron GPR.

For further information about the Glider Pilot Regiment Society please visit: www.gliderpilotregiment.org.uk
Stephen Wright, GPRS



Ann Parry (left), with S&G editor Susan Newby, receives a BGA Diploma (Paul Morrison)

Thanks for your dedication, Ann

ANN Parry has been awarded a BGA Diploma in recognition of 25+ years of producing the *S&G* annual index. She has painstakingly gone through every issue of *S&G* to index each subject and author, working her way through at least 150 issues to produce the annual index, for four different *S&G* editors, over the years.

Ann is from a large family of glider pilots, including her father, Anthony Edwards, who often wrote for *S&G* as the Armchair Pilot. Husband John Parry (who sadly died in 2019) was on Midland GC's committee for many years and directed the Mynd Task Week for many, many years. Ann's brother, Thomas Edwards, is a founder member of Eden Soaring.

In 2019, Ann handed over the role of *S&G* indexer to niece Susie Ellis, also a glider pilot - and married to ex-British Gliding Team member, Will Ellis.

Bequest keeping heritage alive

THANKS to a very generous bequest from a member, the late Trish Williams, together with other donations, the Gliding Heritage Centre (GHC) is now able to start the construction of the GHC workshop. This will enable the renovation and maintenance of the collection, keeping alive the knowledge and skills involved in working on vintage gliders and demonstrate the techniques to visitors. Work will start in the spring and it is planned that the Trish Williams Workshop will be operational later in the year.

The primary aim of the Gliding Heritage Centre, based at Lasham, is to preserve our British gliding heritage and make it accessible to the public. It is an educational resource where visitors can learn about the history of gliding and the more general aspects of gliding as a sport.

■ For more information visit: www.glidingheritage.org.uk



Trish Williams left a generous bequest to the GHC

Glide Omarama

AS WE go press, it has been announced that New Zealand's Glide Omarama, home to some of the world's most experienced mountain flying instructors and glider pilots, has experienced unexpected relicensing issues with the Civil Aviation Authority resulting in a decision to cease all operations. Cancellations and refunds mean the company can no longer operate.

SAILPLANE & GLIDING



Andy Davis
Competition flying



Paul Whitehead
SLMG



Howard Torode
Airworthiness



Derren Francis
Tugging



Mike Fox
Instructing



Dr Frank Voeten
Medical



Andy Holmes
Winch operating



Steve Noujaim
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

When it all adds up

AS AN instructor at the launch point recently, on a challenging windy morning at Lasham, the tug took off towing one of our K-21s. Nothing remarkable about that you may think?

The P1 was aged 89, P2 aged 80 and the tug pilot 77. All qualified solo pilots. Names withheld to protect the innocent (and I'd probably be disciplined by the BGA hierarchy for starting a competition!), but do you know of an 'older' combination than 246 years?

Mark Davenport, Lasham GS

FROM THE ARCHIVES

FROM time to time S&G will revisit classic features that have stood the test of time. This time we go back to the Dec/Jan 01 issue with an article from Jay Rebbeck, *Reading the sky ahead* (pictured right).

This article was the first in a superb series by Jay on cross-country soaring. The introduction is reproduced below. To read the full story, scan the QR code below right, or visit: www.sailplaneandgliding.co.uk/current-issue

WHEN WE'RE flying cross-country, the picture as we look ahead is packed with potentially useful information to help us decide where to point the glider.

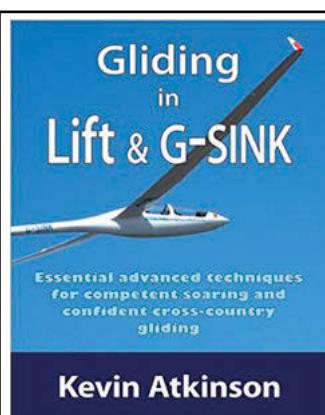
While a fat cumulus cloud lying bang on track might seem the obvious place to go, that won't always be the best decision. If a hard right would avoid that

Please send letters (marked 'for publication') to the editor at editor@sailplaneandgliding.co.uk or the address on p3, including your full contact details. The deadline for the next issue is 6 April



juicy cloud, but takes you to a cloud street that runs for 100km and arcs back onto track, then which option would you choose?

The point is that we need to make decisions on two levels. As well as short-term decisions based on the weather immediately ahead, we also require a long-term strategy.



Aiming higher

GLIDING's tradition of self-teaching of soaring skills can be a slow process. The BGA's initiative, Aim Higher, can hugely accelerate this process. Many clubs have taken advantage of Aim Higher courses in recent years and reaped the benefits. If your club would like to book a course, contact Kevin Atkinson (see email details below).

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

JS3 RAPTURE
Your Dream,
Our Mission.

EASA
European Union Aviation Safety Agency
Approved!

Contact Agents:

Andy Davis
Email: pamandy@compuserve.com
Tel: +44 1453 860945
Mobile: +44 7850 129450

Iain Evans
Email: iain@shirenewton.co.uk
Mobile: +44 7905 233868

www.jonkersailplanes.co.za

JONKER SAILPLANES

The best glider insurance will cover you at every level

Comprehensive Gliding Hull and Liability Insurance

Superior security rating Excellent policy T&Cs Competitive rates

Submit a quote online at: sydneycharlesaviation.co.uk
or Call today for a great value quote +44 (0)1420 88664

Proud sponsors of the British Junior Gliding Team

Sydney Charles Aviation SCAviation1

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.

A FLURRY OF ACTIVITY ON AIRFIELDS

BGA Chairman **Andy Perkins** reminds us to take care when rigging after months of inactivity, to make sure our moving maps and hard copies are ready with the latest info and, above all, to make the most of soaring promise...



B

EING situated

in a temperate climate, UK weather has always been changeable. Climate change seems to be increasing the severity of weather across the globe as the Earth endeavours to balance the effects of an overall warming trend. I hope by the time this issue goes to print the sun will have come out and the flooding of early 2020 will have subsided with everywhere across the UK drying out to allow plenty of gliding to occur.

There have been suggestions that over the next 10-20 years the UK will have summers like those currently enjoyed in parts



Lasham's Martin Roberts completed a 750km covering three national parks on 4 May 2019

of Southern France, with sparkling wines from Southern UK being world leaders. We will have to wait to see if that occurs and the sparkling wines can continue to rise the world rankings, but looking at the Ladder and back over the past few years, May seems to have regularly been one of the best months for good distance flying across most of the UK.

Bigger distances seem to be covered and, as well as technology assisting, I am sure that changes to our weather patterns have helped by making the distances achieved possible. Our Northern England and Scottish glider pilots would point out that if you come further north there are always opportunities for large distances, whatever the month, but for those based further south, April/May onwards tends to give us full days of soaring promise...

This means a flurry of activity occurs around the place with rigging and reminding ourselves how the tow-out gear fits and where exactly is the valve extender that you safely packed away at the end of last year! How we do things reminds me of a conversation with a group of gliding insurance brokers. They noted that there tend to be a spate of ground-handling incidents that cause damage to aircraft early in the year. Accidents are by definition 'an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury'. Obviously, we all do our best to avoid such things, but by their nature these accidents do happen. Together with the brokers we are looking to roll out a few initiatives to help remind us all of the more common possible pitfalls to avoid the more frustrating damage that occurs where possible.

Whatever your goals for flying this year, if you are new to our sport, or an experienced operator, I hope you have great fun of gliding.

Just one more thing, it is hard not to notice the significant changes to airspace across the UK, so wherever you are flying make sure your moving map and hard copies are ready with the latest info. Happy flying.

Andy Perkins
Chairman
British Gliding Association
March 2020



Among the trophy winners for 2019 (and representatives), who were presented with awards at the BGA Dinner, were: (left to right) Toby Freeland, Charlotte Hughes, Jake Brattle, Susie Lyell, Nick Norman, Finn Sleigh, Santiago Cervantes, Adrian Emck, Roger Barber, Dave Masson, Ed Foxon, Chris Gill, Liz Sparrow, Alex O'Keefe, Eric Hibbard, Chula Rupashina, Colin Rule, Lucy Wootton and Matt Page (Paul Morrison)

BGA PERFORMANCE TROPHIES

BGA 1000km Trophy

Not awarded this year

Wakefield Trophy

Longest Handicapped Distance

Roger Barber (Lasham GS)

763km at 83.0km/h, 4 May, Nimbus 4

Furlong Trophy

Longest Handicapped Triangle

Ed Downham (London GC)

716.1km at 93.3km/h, 21 June, ASH 25 EB28

Frank Foster Trophy

Fastest Handicapped 500km

Santiago Cervantes (SGU)

516.9km at 140.4km/h, 8 January, Discus

California in England

Longest Handicapped Flight by a Female Pilot

Liz Sparrow (Lasham GS)

644.1km at 93.3km/h, 22 June, ASG 29

Manio Cup

Fastest Handicapped 300km

Santiago Cervantes (SGU)

516.9km at 140.4km/h, 8 January, Discus

Seager Trophy

Longest Handicapped Distance in a Two-Seater

Ed Downham (London GC)

716.1km at 93.3km/h, 21 June, ASH 25 EB28

De Havilland Trophy

Greatest Gain of Height

Nick Norman (Cairngorm GC)

22,044ft @ Feshiebridge, 21 April, ASH 25

Volk Trophy

Longest Handicapped Out & Return

Steve Lynn (London GC)

643.3km at 79.5km/h, 6 June, ASH 25 EB28

BGA NATIONAL LADDER TROPHIES

www.bgaladder.co.uk

Enigma Trophy

Winner, Open National Ladder

Andy Aveling (Lasham GS)

26,305pts

Firth Vickers Trophy

2nd Place, Open National Ladder

Finn Sleigh (Lasham GS)

25,075pts

Flight Deck Wingman Trophy

Highest score in Open Ladder in glider without MoP

Finn Sleigh (Lasham GS)

25,075pts

L.duGarde Peach Trophy

Winner, Weekend National Ladder

Jake Brattle (Lasham GS)

20,306pts

Slingsby Trophy

2nd Place, Weekend National Ladder

David Masson (Lasham GS)

20,161pts

Navboys Albatross Trophy

Highest score in Weekend Ladder in glider without MoP

Jake Brattle (Lasham GS)

20,306pts

Spitfire Trophy

Winner, Junior National Ladder

Finn Sleigh (Lasham GS)

25,075pts

Chris Wills Trophy

Winner, Wooden Ladder

Adrian Emck (Lasham GS)

21,036pts

OTHER BGA AWARDS

Rex Pilcher Trophy

Earliest Diamond Distance in the Year

Adrian Loening (Cairngorm GC)

12 May

Phil Lever

Most Promising Junior Pilot

Toby Freeland (Lasham GS)

John Hands

For outstanding services to the British Team

Colin Rule (Lasham GS)

Goldsborough

Highest placed pilot(s) in previous World Championships

Jake Brattle (Lasham GS)

Gold, Junior Worlds, Hungary

University Ladder

Bristol University 22,400pts

Challenge Trophy

For the club that, during the previous year, has the most number of pilots who have qualified to Cross Country Endorsement as a proportion of the number of instructors.

Shalbourne Soaring

Philip Wills National Enterprise Trophy

Awarded by the Enterprise Club for most enterprising flight launching from anywhere in the UK

Dave Masson (Lasham GS)

Ed Foxon (London GC)

Alex Ward Trophy

For services to junior gliding.

Matt Page (Cotswold GC)

Lucy Wootton (Shenington GC)

Haywards Trophy

For instructing excellence.

Chula Rupashina (London GC)

BALE OUT!



G Dale's glider wedged in a tree after a mid-air collision

Could you safely escape from a mid-air collision? G Dale explains why you must be prepared – in case it happens to you

In 2012 I became one of the select number of pilots who've performed fewer landings than launches. Yes, I jumped out. I was lucky to survive the experience with a written-off glider, a slightly damaged leg, whiplash and an interesting case of PTSD. Oh and I came last in the 2012 Club Class Nationals – well, second to last.

Given that I'm working as a soaring coach it seems only reasonable that I should share what I learned from this with the community, so here goes...

Dangerous flying

So what did I do wrong? The DG-100 has a big fat wing section (not for nothing was it nicknamed "the fat bird") and it would fly very slowly indeed. So there I was, floating around in this crowded weak blue thermal at low level, waiting for a better idea, looking back at an LS7 just behind me in the turn. Why dangerous flying? Because slow and flat in a crowded thermal is hazardous for the guy behind. Especially if he's flying a sharp fast machine and you're flying a paper bag. Sorry mate, I should have thought a bit harder. Anyway, I was given a big clue:

"This is rubbish, I'll open the turn to search around, so look out and underneath...whoah! There's a glider 10 feet below coming up at me... twitch it up a bit, but only 40kt, shudder, shudder, shut my eyes... BANG!"

What should you do after a mid-air?

You need to understand right from the beginning that if you are unlucky enough to be involved in a mid-air your "fight or flight" reflexes will kick in hard. The brain secretes a load of cortisol in a real hurry, you'll get what we call "an adrenaline rush", your perception of time changes, your self-awareness goes away and, if you're lucky, you'll move fast and with incredible strength. If you're unlucky, you'll freeze. I was lucky.

When you're deep into the fight or flight response the brain doesn't process information in the way you would hope. You have to know what to do already without having to work it out.

"BANG! The nose goes down... BRAKES! BACK STICK!"

It might take a damaged wing right off, but I'd always open the brakes after a mid-air or any kind of airframe failure: it reduces the speed build-up, stabilises the glider, helping to prevent an accelerating spiral dive and, by limiting the speed, increases the time available before the glider hits the ground.

"Brakes open, stick back, nose comes up a bit, I might get away with this... and then... wham, a hard negative bunt into the vertical and straight down. GET OUT! GET OUT! GET OUT! GET OUT!"

Frankly, absolutely terrifying. Beyond that, really, no words to describe the sensation of having the stick dead in your hand and accelerating straight down through 1,500ft. I just missed taking out Claudia Hill, and I scared my team mate Ian MacArthur half to death as he watched the glider going down like a stone dropped into a well.

"CANOPY JETTISON... PULL! PULL HARDER! PULL WITH BOTH HANDS! PULL! PULL!"

The first thing to do is to get rid of the canopy. Beware. It may or may not come off. It helps if you maintain the glider correctly: I'd made a crucial mistake on my DG, having not removed the canopy to grease the emergency release mechanism at the previous annual. It's an AD as well. D'oh. Both hands on the release, pulling as hard as I can, feet braced on the rudder pedals, all my strength and it still wouldn't go... for quite a long time. With the ground coming up fast it seemed to take forever.

"IT'S RELEASED, KICK IT OFF, YES, IT'S GOING... WHACK!"

And the lights go out. Damn thing hit me on the way past. Actually it was the headrest, which on my glider was fixed to the back of the canopy. As the lid hinged upward, the headrest hit me incredibly hard on the back of the head; 150kt of airflow gave it quite a bit of push. So I miss much of the next seven or eight seconds. Luckily for me, just after I got whacked in the head the fuselage broke clean in half, which slowed the airframe considerably. Without a tailplane the glider then bunted through an outside loop at around 80kt and -3g finishing inverted at about 800ft. My first outside loop and I missed it.

"HUH? IN THE DARK... ARMS HANGING ABOVE ME... WE'RE UPSIDE DOWN! HELL, GROUND COMING UP, RELEASE THE STRAPS, GO GO GO... TWIST, WON'T MOVE, BOTH HANDS SHOVE, SHOVE... I'M OUT."

I wake up, realise what's happening,

struggle to get the straps undone. Eventually (again, it seemed to take forever) I fall out of the cockpit. There's something like 800ft left underneath.

"SKY GROUND SKY GROUND – I'M TUMBLING, MAYBE I'D BETTER TRY TO STOP IT? NO, IDIOT, OPEN THE CHUTE!"

Obviously that all worked out fine. Parachute opens, I look up, see the canopy, punch the air and shout a few obscenities about not dying yet. Then I calm down, try to work out how to land.

"Where's the sun? So the wind is there, I'm drifting that way, forest, motorway and railway line in that order; wires and cars, best track into wind then. Grab the back risers to steer... WHAT? THE GLIDER IS COMING AT ME! Well that missed, now how do I land this thing?"

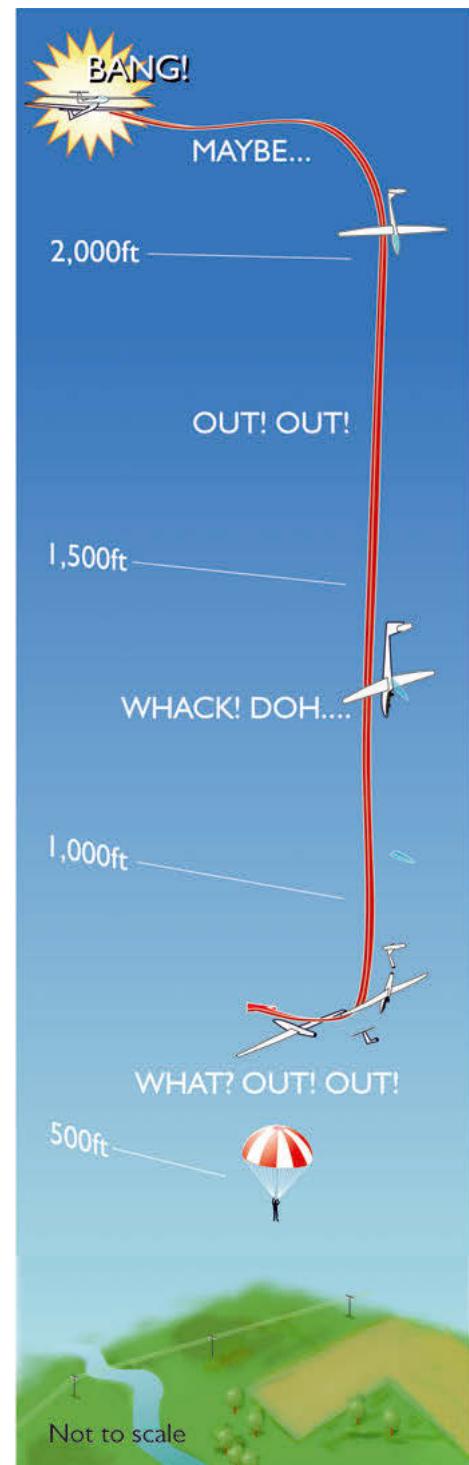
And I pass out again. Gill Spreckley lands, finds me face down in a field snoring, sorts it out. Sarah Harland calls D&D (distress and diversion service for pilot emergencies). Helicopters, fire engines, ambulance, head strapped to a board, oxygen mask, dee daw dee daw to the hospital. Head in the scanner. All OK – no worse than before anyway. Thanks everyone for the help. Thanks to NHS for the stunning service. And my team mates see the chute open, see the other glider land safely, get on with the task. I'd have done the same in their place, no need to stop now.

So after the dramatics, let's be rational. If we can.

The biggest lesson I learned was that dealing with a mid-air collision and subsequent loss of control isn't going to be a calm and rational experience unless, maybe, you're a Chuck Yeager (US Air Force flying ace, first to exceed speed of sound in level flight). When the fight or flight response kicks in, when the amygdala hijack takes over (look it up) then you're not going to be the same person. If you don't know what to do beforehand, you're not going to work it out at the time. Hence the nature of this article; I wanted to give you a flavour of the experience. Here's some suggestions that you might use to pre-programme yourself:

- 1) If the nose goes down after an airframe failure then open the brakes. It's a gamble, but it could buy you some time. *Do not confuse this situation with stalling/spinning from mishandling the glider!*
- 2) Get rid of the canopy first. Protect your face and head as it goes.
- 3) Then undo the straps. In that order, not the other way around. It might be hard,

SEQUENCE OF EVENTS AND HEIGHTS DURING G DALE'S BALE OUT



Being involved in a mid-air collision is more common than you might believe. Having mentally prepared to face such an eventuality, G Dale acted instinctively when involved in a mid-air during the 2012 Club Class Nationals at Gransden Lodge (Illustration Steve Longland)

BY THINKING IT THROUGH AND BEING MENTALLY PREPARED FOR THE WORST YOU WILL IMPROVE THE ODDS THAT YOU WILL BE ONE OF THE SURVIVORS



The fuselage broke in half, with the wreckage landing in trees



Gerrard Dale – “G” to his friends – is a member of the British Club Class team and won a Silver medal in the 2019 Europeans. He currently coaches for Narromine GC in New South Wales, for Lasham in the summer, and at Serres in the French Alps. G is the author of *The Soaring Engine Volume One; Ridge Thermal Flatland and Mountain* and *The Soaring Engine Volume Two; Wave and Convergence*. He’s hard at work on Volume Three of the series; high performance flying and competition flying. These can be purchased from www.navboys.com or www.bgashop.co.uk

↙ really hard to undo the buckle if there is a negative g load on the straps. If it's positive g then throw the shoulder straps up and back so they don't snag you as you get out.

4) Get out of there, any way you can.

5) Don't wait, open the chute straight away. You're probably clear of the aircraft, and the ground is coming up fast. The longer you leave it, the more likely you are to start spinning up. To open the 'chute, "Look/reach/pull/arch" ... more on that in the next article.

6) Practise this routine as best you can, until you can't get it wrong.

Difficulties may arise

Now we're into speculation. From what I've learned over the years, there are quite a few possible outcomes of a mid-air collision.

If the glider flies normally:

where is the damage? If there is any chance that the back end is damaged then it's probably wise to get out, before you are too low. The tailplane might come off, the

fuselage might break in half and then where will you be?

If you are certain that the damage is insignificant and where you can see it, then staying with the aircraft may be a reasonable thing to do. I'd have the brakes open by then and be on the way into the biggest, flattest and clearest surface available, landing into the wind without having to turn. No soaring, no flying faster than minimum speeds, no manoeuvring.

If the roll control has gone: losing aileron control will give you a spiral dive. Speed will increase, g will increase, you won't be able to get out after a few seconds. The canopy may not come off under these conditions. If this is happening, remember the glider cannot pitch up and produce g without having a tailplane attached. If there is a tailplane you might be able to unload by shoving the stick forward. It's worth a go, and there are many tales of pilots ejecting themselves from gliders by mistake by pushing on the stick with their straps undone. I'd pull the canopy release, undo the straps, protect my head and shove, hoping to go straight through the canopy or take it with me. It sounds desperate, but what else are you going to do?

If the tailplane is damaged or gone, the glider will likely bunt hard: in which case it's easy to get out. Just pray there is enough airspace underneath and time to do it. Move fast!

Flying the parachute and landing it

This is outside of my skill set. All I can say is that I got away with it, including landing having passed out in the air. I'd rather be lucky than good any day. We'll tackle this in the next article.

Post traumatic stress disorder

So, being a ruffly tufty old geezer, instructor, coach, mountain pilot and competition pilot with a lot of flying experience over many years – it never occurred to me that I might suffer from PTSD. It turns out that I'm just like anyone else.

I wasn't frightened to fly again, or any more scared of gaggle flying than before. Which was "already quite scared enough, and for good reason." I was, however, far too aggressive and driven for the next year whilst I tried to get my competition career going again. Get my aircraft out of the trees, sort the insurance, buy another glider, sort it out, qualify... no time for anything or anyone else apart from getting back into the team. And I managed it, but eventually a good friend took me on one side and pointed out the problem. Just in time really as I was driving my partner completely nuts. It's a more common issue than you might realise. Since becoming aware of it I've looked around and seen other pilots suffering from PTSD in various guises. Keep an eye out for this, especially if you're managing a club, if you're a CFI or an instructor.

In conclusion

I didn't die, neither did the other guy. Gliders broken, but nobody cried. But think about this: when I'm doing a safety-oriented lecture to a fair-sized audience I'll often ask how many people in the room have had a mid-air collision. There's often several in the audience. I've seen one from the ground, I've had one myself, my partner Annie has had one, my friends Frank, Alex, Jane, David, Kim, Dave, Mike, Alan, the other Mike, Ted, the other Alan, Harry... I could go on. It's more common than you would like to believe. By thinking it through and being mentally prepared for the worst you will improve the odds that you will be one of the survivors. It is a numbers game, there are no guarantees, but every little helps. Best to avoid the whole issue by looking out properly, but this is hard to accomplish.

■ In the next issue we'll look at the second part of the story: how do you care for and use a parachute?

Glider Insurance specialists



Contact Hayward Aviation to find out how we can help you.

Our competitive rates and policy covers offer excellent value for money and peace of mind, in increasingly turbulent market conditions.

Call Nigel, Tim or Jack on + 44 207 902 7800 or e-mail info@haywards.net
Please quote F1603

Aviation insurance people, working for you



HAYWARD AVIATION IS A TRADING NAME OF ARTHUR J. GALLAGHER (UK) LIMITED

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



HAYWARD AVIATION IS A TRADING NAME OF ARTHUR J. GALLAGHER (UK) LIMITED WHICH IS AUTHORISED AND REGULATED BY THE FINANCIAL CONDUCT AUTHORITY
REGISTERED OFFICE: THE WALBROOK BUILDING, 25 WALBROOK, LONDON, EC4N 8AW. REGISTERED IN ENGLAND AND WALES. COMPANY NUMBER: 1193 013

HAY/0220/1003

MENDELSSOHN

THE UK & EUROPE'S AVIONICS SUPPLIER



Trig TY91



TQ-Avionics KRT2
(formerly Dittel)



Funke ATR833S



Becker AR6201

2018 8.33kHz COMPLIANT RADIOS

For full specifications and pricing on all our 8.33 kHz Coms and Nav / Coms please check our website.

GPS.CO.UK

+44 (0) 131 447 7777

LOOKOUT: HOW THE EYE CAN LIE

PART
TWO

Paul Sheffield
continues his article
on lookout with
advice on where we
should be looking

PART one of this article in the last issue dealt with the limitations of our vision, and how to overcome them. Part two tries to take the seemingly random space we fly in and make some sort of sense of where the risks are more likely to be – where we should be looking out as glider pilots.

In a perfect world we would pay equal attention to all areas, and that would be ideal if the threat were truly random. In reality some areas hold more risk: cloud

streets, circuits, ridge flying, nearby ATZs, entering and being established in thermals, etc. So scan patterns have to be adaptable, and thinking ahead is crucial depending on where we are.

How we look out depends on the mode of flight we're in. Clearly, when in a cruise compared with thermalling the threats are quite different.

During cruise, one could imagine lookout is somewhat akin to driving. We look where we're going and our peripheral vision becomes attuned to anything that moves. This isn't good enough however for flying, because it's the objects that don't appear to move (on a constant relative bearing) that are the real threats, whether they be on, or more peripheral to, our track. To spot these aircraft at a distance, we require our acute, central vision, which means looking around the likely threat areas. It's probably true that the faster we fly in cruise the more time should be spent looking where we're going in some band of space around our track, but the word is more, not solely – we still need to look around. The reasoning is as follows.

Threats

Imagine you could cruise on track at Mach 1 in airspace containing gliders flying around at normal speeds, all on their individual tracks. You'd probably leave nearly all the threats behind you; it'd be a narrow band of space around your track that would matter. Now consider you're in a helicopter, hovering in the same airspace. The threat is now equal from all points of the compass. Looking 'ahead' is no more relevant than anywhere else in this instance. Should we now move off in our helicopter at 10 knots, the threat would only slightly increase ahead, and slightly reduce towards the space behind (we're only talking about cruise flight here without turns). Furthermore, if everyone else were hovering, we couldn't hit anything from behind our wing. If we're flying at the same speed as everyone else, this is still

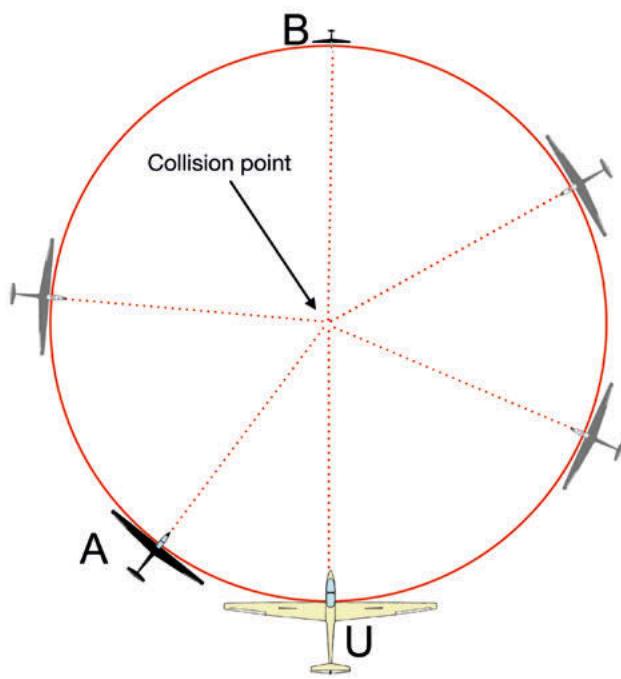


Figure 1: Other aircraft travelling at the same speed as you will cover the same distance as you in any given time. Therefore, those aircraft that happen to be on a constant relative bearing (CRB) will be at the same distance as you from the collision point. They are all on the circumference of a circle of which you (U) are a part. That CRB circle is ahead of you, so all gliders will be in front of your wing. Aircraft on a CRB travelling faster, are on a larger circle, and part of that circle, is behind you. Note that time to impact for glider A and B are the same, but the angular size of B is much smaller as it's further away (only gliders A and B are in relative scale to each other here).

essentially true.

If we all flew at precisely the same speed, the collision threat would be in the forward 180°, even if the converging track angle between the two aircraft was small, even much less than 90° [Fig. 1, glider A]. This is because the converging glider that's going to collide can't be behind you at any time (if it were, and travelling at the same speed, it couldn't catch you up). The other aircraft would still be in front of your wing by some small amount. How far in front of the wing is dependent on how small the converging angle is. The shallower, or more parallel the converging angle of a colliding threat, the closer it would be to the wingtip position.

Think of it as the other glider on a straight course and you converging on it, even by some small amount, your wing must be angled such that the other glider is in front of it. Theoretically, you could ultimately be hit behind your wing, but the point is they would have been visible in front of your wingtip until impact. The CAA consider that the majority of collisions would come from the 120° arc ahead of track in cruise flight.

Time to spot

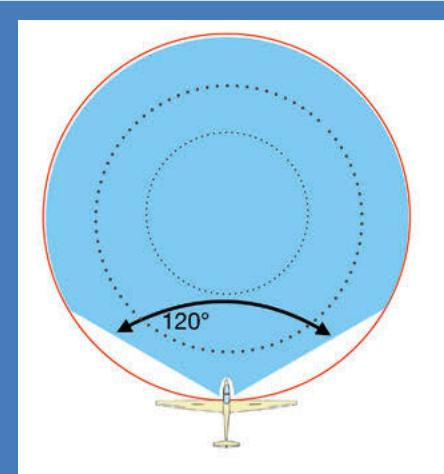
If we were all to fly at the same speed, whether that be 10 knots or Mach 1, the threat would come from the same potential places, just that we'd have more time to spot them at 10 knots!

The faster we fly on cruise relative to everyone else, the more ahead the threat becomes (and with gliders generally the more we descend too). So the threat, hidden from us behind, will be flying faster than us, and the other pilot needs to be looking in their forward sector as just mentioned.

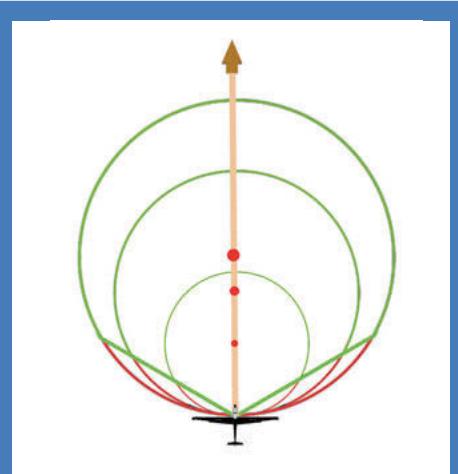
Perhaps all this can be simplified too: the faster you fly relative to everyone else, the closer you begin to look to your track, apportion slightly more time there, and the smaller the eye movements. It's not just the time to the threat as the angular size of the threat [Fig. 1, glider B], but not to the exclusion of everywhere else. When we look off-track, turning our head, we'll probably be using relatively larger saccadic eye movements – pausing for a moment between them to assimilate what we're looking at – to check larger areas of nearby, and therefore slightly more easily seen threats. We also need to constantly update what else is in the sky in general.

Once we start turning, all this threat analysis goes out the window!

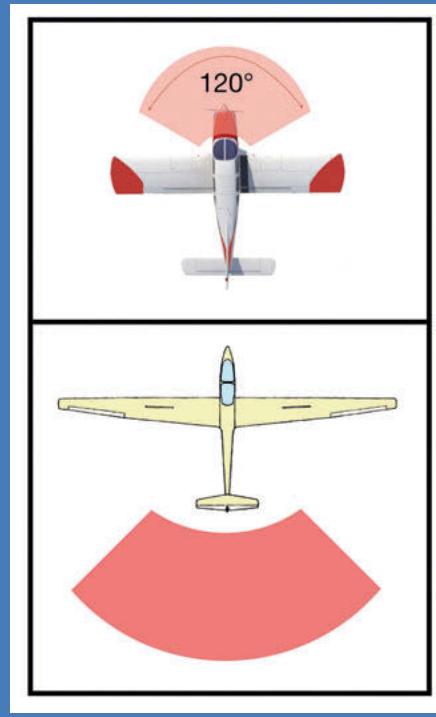
In general sport aviation our speeds



Above: A 120° sector from your viewpoint happens to cover exactly 2/3 of a same-speed-as-you CRB circle, and a larger proportion, up to 100%, of slower moving aircraft on a CRB (dotted smaller circles centred on some notional collision point). Colliding aircraft of slower, but differing speeds, will in effect fill the area of this same speed CRB circle. This all assumes aircraft are maintaining a constant course and speed. In reality, course and speed changes by other aircraft, or you, will either take them off part of a CRB circle, or put them on one.



Above: These CRB circles don't have a specific size (threat distance from you), they are an amalgamation of angles and distance to some collision point, such that a CRB arises from aircraft on a constant course and speed. You are on the circumference of whatever size circle you may consider. The collision point moves further ahead for aircraft further away (red dots at the centre of the circles). The ratio of the field of view not looked at, in red, remains the same to that checked, in green. Looking from wingtip to wingtip will cover 100% of same-speed and slower aircraft on a CRB, and likely the majority of faster aircraft on a CRB.



Left: The CAA suggests the greatest threat probably comes from 60° either side of track during cruise, with reduced threat beyond 90° either side. Independently, the BGA find that the greatest risk of collision in gliders comes from the rear quarter, and overwhelmingly with other gliders in thermals, ridges or airfield patterns (there is no particular implication that powered aircraft fly into the back of gliders). Airspace4All Ltd found after analysing 43 years of civil aircraft collisions that 13% of glider collisions were with powered aircraft (half of those with tugs), and 87% with other gliders – 17% of that risk occurring in the cruise and 83% over or close to the launch site.

DURING THERMALLING THE THREATS ARE QUITE DIFFERENT TO CRUISE AND COULD BE CONSIDERED TO BE ALMOST THE OPPOSITE

IN SUMMARY:

- Ensure your eyesight is properly focused in the first place with clean spectacles and canopies.
- You must turn your head as well as your eyes for an effective lookout to reduce the chance of missing something in one of your natural blindspots, and overcome obscurations from canopy arches and furniture, etc.
- Develop a methodical scan routine, for example, by searching a broad band centred on the horizon. Perhaps consider that space overlaid with a grid or clock positions to avoid missing large areas. Start by looking in one direction and at each position look above and below the horizon and work your way around (and at the 3 or 9 o'clock position you could check if the wings are still level). Come back and check attitude (which is looking ahead too, so you can search here again) and instruments, and then repeat in the other direction.
- In cruise mode of flight, in general, the faster you fly compared to other aircraft in your area, the slightly more time should be spent looking ahead, and the closer to track you look use smaller saccadic eye movements as those threats are likely to subtend smaller angles.
- The vast majority of the threats will be in your field of view in front of the wings.
- Highest risks of collision appear to be during thermalling, ridge flying and circuits.

Finally, don't forget to enjoy the view!

are largely similar, so the highest risks are probably, but not solely, in that forward 120° centred in a band around 10° to 15° from the horizon above and below. We must also consider that the sum of all the threats from everywhere away from some notional band of space around track will probably be much higher than the risk from that band of space around track alone – the area of space ahead is small compared to everywhere else. Of course, the faster-moving aircraft striking another can come from any direction.

During thermalling the threats are quite different to cruise and could be considered to be almost the opposite, that is, from the rear quarter, and from above and below. Likewise, we shouldn't knowingly put ourselves in the obscured regions of another glider whenever possible. Perhaps then as we thermal and another glider begins to disappear behind us (which requires more head turning than comfortable), we should leave the thermal. There is always that risk/benefit balance, but when you know there's an unseen glider behind you, you are accepting that your life is in their hands. Thermalling then requires virtually continuous lookout in so many areas whilst maintaining correct attitude and bank.

As yet no one really knows the ideal way to apportion the time, or precisely where you should be looking during particular modes of flight, although we should have a good intuitive idea. You can be sure in the meantime that the more time looking out in a regular and routine way, the better.

In the following part of this article are a series of photographs of a winch launch and flight. These are not comprehensive by any means, nor are they the only places we should be looking. These should be considered as starting points.

As fundamental as it is, looking out is only half the story; we have to act on what we see, even if that's only thinking about options. It's all too easy to feel it is OK because we've seen another aircraft, and think maybe it's fine to fly closer. We don't perceive the threat really increasing that much as we get closer, yet in reality it is. The presented area of the other aircraft goes up fourfold with halving

distance (since the dimensions each way double), so something small only really starts to balloon in size when we are much too close. Perhaps we should view the threat of collision going up fourfold as the distance halves on the basis that at any given time in a flight, the potential places you are able to fly to, but mustn't, increases fourfold. One for the mathematicians amongst you to cogitate on, please!

The first of these articles started with a driving soundbite, *Think Once, Think Twice, Think Bike*, and I shall it end with one too: *Keep Your Distance*. Safe flying.



■ **Before launch** – As we wait for the person who's put the cable on to say "All clear above and behind," the implication is that we have checked everywhere else. There are four issues in this image: the first is that we wouldn't launch from a position so close to the other cables. Having started from a position more to the left, not only the rope section, but also the chute and as much of the cable as possible should be pulled over in-line with the glider. This reduces the risk of suddenly inducing yaw during the initial acceleration of launch. The second is the vehicle on the field, the third the glider at the top of the launch area, and finally, the area of picture shown isn't wide enough to check if our airspace will remain clear of approaching aircraft – we should check everywhere in this image and further left and right for approaching conflicts.

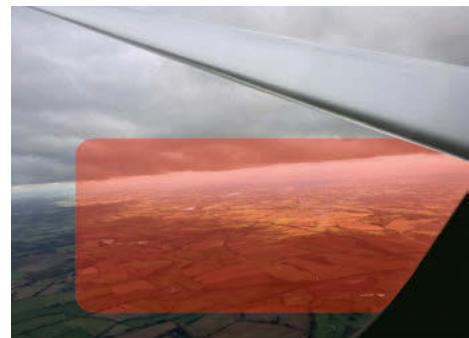


■ **Above: Winch** – Once in the full climb on a winch launch briefly look along either wing to check you're at a suitable angle of climb, the amount of 'lay-off' to compensate for a cross-wind element if appropriate, and for any other issues!

After launch, threats can come from anywhere so lookout should begin with a broad band centred on the horizon, above and below, and as far back as possible. Gliders too are almost always changing their altitude, course and speed, so a glider that appeared 'safe' some seconds ago may soon become a real and serious threat. Don't forget to look overhead, especially so when entering a thermal. When descending rapidly with airbrakes it's usually safer to do a series of 'S' turns or circling rather than letting down in a straight line and being unable to see what's below.

**PERHAPS
THEN AS WE
THERMAL
AND ANOTHER
GLIDER BEGINS
TO DISAPPEAR
BEHIND US, WE
SHOULD LEAVE
THE THERMAL**

■ **Right: Thermal** – It's obviously crucial to monitor the other gliders at a similar altitude in the thermal so as to slot oneself in with the least fuss. Look up too before joining to see who's there. Those gliders may leave the thermal before you, others may join, and you may have missed someone higher up with whom you may catch up.



■ **Above: Before turn/during turn/coming out of turn** – Before initiating a turn look as far round as possible in the opposite direction to the intended turn to look for an approaching aircraft as you may not see it again until turned through nearly 180°, check attitude, then look as far round as you can in the direction of the intended turn.

When rolling into the turn look over the nose to check attitude and coordination. Once in the turn, the scan's datum point should be along the horizon in the direction of travel, NOT down the wing during the turn.

Before initiating roll-out, ideally check ahead as you sweep about 90° of airspace during the turn, and then look under the down-going wing.

CONTINUED ON THE NEXT PAGE

NATURALLY THE PILOT IS CONSTANTLY JUDGING THEIR POSITION TO THE LANDING AREA AND CHECKING FOR CONFLICTS THERE



Paul Sheffield went solo at 16, then gave it up, apart from the odd week's gliding holiday around the country. He took it up again and got Silver C 20 years later. Family/work commitments meant that Paul gave up gliding again until recent years. He now flies from the Gliding Centre and is hoping to try cross-country flying. Paul has been an optometrist for 35 years.



■ **High key** – Our anticipated circuit in red. We're less likely to collide with anyone ahead of us on a similar circuit, but obviously we need to know whether anyone is there and where they're going – we don't want to catch them up. The higher risk of mid-air collision will come from someone converging on a 'non-standard' approach from outside of our intended path. We have to keep cycling our attention to all the risky areas. Don't forget to check below too as far as you are able. The radio is a valuable tool, assuming it's working!



■ **Base leg** – Look ahead for someone on an opposite base leg, and scan an area in the opposite direction to the final turn for someone coming straight in. Naturally the pilot is constantly judging their position to the landing area and checking for conflicts there – if gliding were easy, we wouldn't do it!



AERO PAINT SERVICE
...because your glider deserves the best...

www.aeropaintservice.com



@aeropaintservice



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

PHILIP WILLS MEMORIAL FUND SUPPORTING GLIDING IN THE UK



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

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

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

We look forward to hearing from you.

In conjunction with the

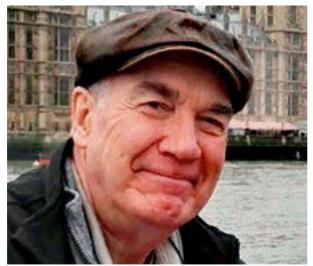


FLYING WING IS FIRST IN THE UK

Keith Ashford starts the process of testing and type approval of the only Jim Marske 'flying wing' outside the USA/Canada



Safely home on Keith's drive in Warwickshire



Keith Ashford flies at Hus Bos. In the early 90s he bought a grounded Oly 463; with the help of the late Lou Glover, Keith was able to enjoy many favourable flights in it. He went on to ridge soaring at Sutton Bank and wave flying at Aboyne.

WHERE to start?! I bought a set of plans for the Pioneer 2D many years ago. On them was written "study and understand all measurements and construction methods". Twenty years later, the project was still on the back burner. Little things kept getting in the way, like getting married, buying houses, changing jobs, etc. The last house I brought had room for a large three-car garage extension, but other smaller projects kept taking priority.

Finally, I went on a couple of composite construction weekends, then spent two weeks over in Marion, Ohio, USA (home to Marske Aircraft) learning about flying wings, their flying characteristics and construction. There are a few stories flying(!) about regarding their stability, most of them unfounded.

Since his first encounter with aviation as a child during WW2, Jim Marske has devoted most of his lifetime to designing and building flying wings. Building many model gliders as a teenager, Jim designed and constructed his first man-carrying flying wing glider at the age of 21, mainly to prove to himself that the flying wing was as good, or not as good, as his models had proved.

I've imported an older model Pioneer 2D from Canada. There are newer designs on the market, like the 3D and now the 4D, with glide ratios over mid-forties and with water ballast. So the guys at Marske Aircraft really know what they are doing.

My workshop is only just big enough. Unfortunately the wingtip extensions are fixed on this particular machine; later build models will be detachable. I have two spare fuselages and enough materials to build another 2D.

I'm toying with the idea of building an electric-powered self-



Loading the container in Canada
sustainer in the future.

First of all I need to get this one type approved and flight tested. It already has over 200 hours flying in the USA/Canada, with many hours of testing/cross-country.

I foresee lots of paperwork, inspecting, weighing, flight testing, etc, and hope to keep you all posted with developments.

I also imported a second glider – with a "may as well fill the whole container" logic. It is new, but needs finishing/assembling with a carbon spar. Real open-air flying – the Monarch G. But that's another story...

■ **THE BGA COMMENTS:** This could be a BGA glider as a non-EASA type, as long as it is a 51 per cent homebuild. It is too heavy to be a SSDR and very likely does not conform to the latest EASA CS 22 design code. Some BGA due diligence and testing will be required.



Arriving at Warwickshire



Bernard Eckey reports on a 'fearsome competition weapon'

AGILE AS 33

IT WAS a sunny, but very cold, winter's day in Germany when Schleicher's managing director took the long-expected successor of the legendary ASG 29 for its maiden flight. Many invited guests braved the cold and the entire development team was also assembled on the little airstrip behind the factory on 23 January.

The tug rolled into position well before lunchtime with Uli Kremer behind the controls of the new AS 33. As the chilly winter air didn't yield any lift he was back after less than an hour, but the broad smile on his face said it all. "Only a few metres into the ground run I had full aileron control," he exclaimed. "We have equipped the prototype with our 'Es' sustainer engine, which also worked flawlessly. For the first few flights we

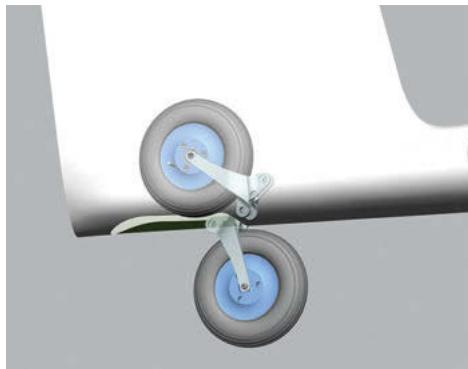
are limited to a maximum speed of 160km/h, so the focus was on the low speed handling and on the testing of the aircraft's agility. I'm very pleased indeed! The AS 33 is not only very quiet and docile, but its control harmony is also better than any glider I have ever flown. It even seems to trump the agility of the ASG 29. Our development team has done a brilliant job. No trim adjustments were necessary and at times the glider was flown hands off. Slowly reducing the speed until the stick is hard against the backstop does not result in a sudden wing drop and even during the first landing I was confident to bring the speed right back.

"This glider is suitable for early-solo pilots and with all the improvements we have made I'm sure that the AS 33 will soon" 

Above: The almost perfectly rounded leading edge of the AS 33 (all photographs courtesy of Schleicher/Manfred Münch)

ITS CONTROL HARMONY IS ALSO BETTER THAN ANY GLIDER I HAVE EVER FLOWN. IT EVEN SEEMS TO TRUMP THE AGILITY OF THE ASG 29

**I'M NOW VERY
CONFIDENT
THAT WE
WILL SOON
RECEIVE EASA
CERTIFICATION.
THE GROUND
FREQUENCY
CHECKS AND
THE STRESS
TEST OF THE
NEW WING
WERE ALREADY
SATISFACTORILY
COMPLETED**



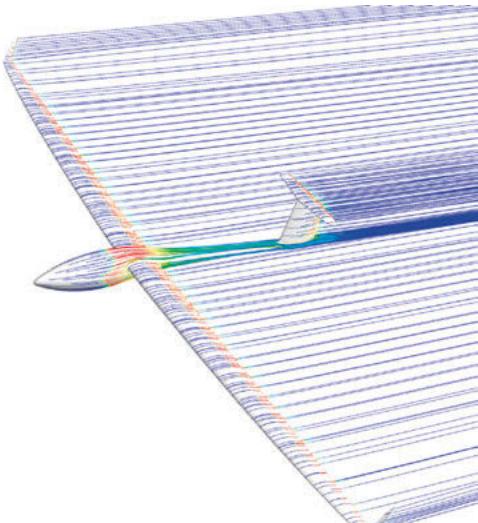
Above left: Fully retractable tail wheel with inside opening door

Above right: CFD generated airflow pattern

Below: Most of the brains behind the new design

regain "pole position" in both 18m and 15m class. I'm now very confident that we will soon receive EASA certification. The ground frequency checks and the stress test of the new wing were already satisfactorily completed some time ago."

While Uli Kremer was still sharing his excitement with the many bystanders, Ulrich Simon – the brain behind the aerodynamic design – got ready for his flight in the AS 33. Back on the ground he was also full of praise for the newest 15/18 m glider. "Most pleasing is that the stalling speed is clearly lower compared with the ASG 29," he said. "It endorses our theoretical predictions and confirms that the new wing is indeed as good as wind tunnel tests and CFD (Computational Fluid Dynamics) software



indicated. With the flaps in '5' or '6' position the new wing produces seven per cent more lift compared with the ASG 29. This is pivotal to our design as it allows the new AS 33 to operate at a wing loading of 60kg/m² while still meeting the CS 22 minimum speed requirements. This is quite remarkable, given that the AS 33's wing area is only 10m²."

While Joschka Schmeisl (head of the development team) got himself ready for his flight in the AS 33, Ulrich went on to say: "Right from the beginning we were determined to fully realise what the current material technology permits, but we were lucky that we were able to use the ASG 29 as our measuring stick. As many as 350 are already in operation around the world and the readily available performance data allowed us very accurate comparisons.

"Every component and every design change was analysed and thoroughly evaluated to arrive at maximum possible drag reductions. Central to our design efforts was the computerised calculation of boundary layer behaviour as it clearly shows the transition from laminar to turbulent airflow. Especially where complex surface flows exist this is of prime importance as an early transition to a turbulent airflow causes more drag and has therefore a very detrimental effect on performance. In the past various universities provided this service, but nowadays we can utilise the company's own computer analysis tools, which has allowed us to conduct this work in our offices at the Poppenhausen factory. However, to play it safe we also conducted extensive wind tunnel tests, which confirmed almost all of our theoretical predictions and even led to some refinements."

According to Uli Kremer, the CFD review of the basic ASG 29 fuselage indicated an ideal fuselage contraction ratio and showed hardly any options for improvement. The external shape was therefore retained, including the much-acclaimed safety cockpit. For very tall pilots (with extra large feet) the rudder controls were modified for a little extra room. Other internal improvements include a new instrument panel, an upgrade of the adjustable backrest and further crashworthiness advances.

Ulrich Simon went on to say: "We did, however, make some modifications to the wing-fuselage intersection after an extensive CFD analysis of six different configurations. A high wing attachment proved detrimental as it increased the wetted area by 0.26m². Gerhard Waibel already experimented with





a high wing configuration with the ASW 15 and ASW 17, but went back to a mid-fuselage wing attachment on the ASW 20 and all his subsequent designs.

"It is interesting that today's highly sophisticated flow analysis has verified his decision. It shows not only the lowest amount of drag, but also significantly less turbulent airflow around tail boom and empennage. This made us adhere to the mid-wing configuration, but with changes around the wing-fuselage junction. This part of the work proved especially challenging as changing one parameter can negatively affect other aspects of the design. Different speeds, flap settings or angles of attack are only some of the variables to keep in mind. In the end we did, however, opt for a slight change of the root rip incident angle. It benefits high speed performance and improves in-flight visibility as a welcome byproduct.

"Another obvious drag reduction option was to integrate a fully retractable tail wheel. We did that and even opted for a sturdy and large diameter 200x50mm wheel to provide plenty of ground clearance. An inside opening door eliminates damage to the little door cover, but we decided to offer the retractable tail wheel as an optional extra. Even minor improvements, such as a CFD optimised cockpit ventilation system with air extractor, an improved canopy seal, smaller

control surface fairings and numerous lesser changes made a surprisingly large difference at the end of the day. All of them have contributed to an unprecedented best L/D of 56:1 for an 18m glider. A comparison of the polar curves speaks for itself. It shows a noticeable gain over the entire speed range, but especially in the mid- to high-speed range the AS 33 will be clearly better than the ASG 29.

"Of course, the main performance contributor is the entirely new wing and the ability of the new profiles to generate slightly more lift. The combination of a modified wing planform and a total of 12 different wing sections got us very close to an elliptical lift distribution, which is essential when it comes to minimising induced drag. At first sight the seven trapeze-shaped wing elements give the impression that the leading edge is evenly rounded. However, perfectly rounded leading edges render the use of sanding templates ineffective. Only wing elements with a straight leading edge allow precision sanding in order to achieve the profile accuracy required for long laminar airflow above and below the wing. This is crucial for fully realising this glider's performance potential. We also opted against kinks in the outer wing as they cause a small airflow disturbance and hence unnecessary amounts of drag.

"In comparison with the ASG 29 the

Above: The external shape of the ASG 29 fuselage has been retained for the AS 33

Below: Cockpit air extractor



IT SHOWS A NOTICEABLE GAIN OVER THE ENTIRE SPEED RANGE, BUT ESPECIALLY IN THE MID- TO HIGH-SPEED RANGE THE AS 33 WILL BE CLEARLY BETTER THAN THE ASG 29

**THESE NEW
WINGLETS
DESERVE
A SPECIAL
MENTION AS
THEY GENERATE
NO ADDITIONAL
DRAG AT HIGH-
SPEED, BUT
SIGNIFICANTLY
REDUCE
INDUCED
DRAG WHILE
THERMALLING**

Below: Speed polar of AS 33

↙ wing area of the AS 33 is reduced by about five per cent, which has increased the aspect ratio by roughly the same amount. Our 3D airflow simulations suggested a different shape of the outer wing as well as longer and pointier winglets. These new winglets deserve a special mention as they generate no additional drag at high speed but significantly reduce induced drag while thermalling. As with all our other models they are detachable for ease of ground handling and trailering and can quickly be reattached with 'Snap-On' fittings. All of this ensures that the excellent climb performance of the ASG 29 is retained and that the aircraft can cope with even the weakest and narrowest of thermals. Equally important is a reduced sensibility to atmospheric turbulence and the aircraft's ability to provide good feedback from the air. We are now very confident that all these targets have been met.

"To enhance agility we have further refined the ingenious AS flaperon mixer. It

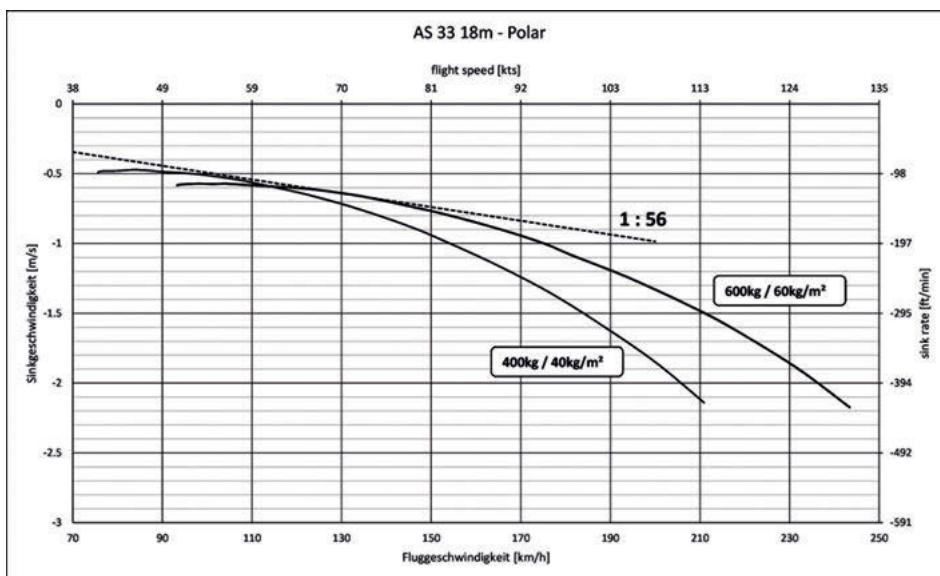
provides greater control deflections at the outer wing and minimises drag with positive flaps in circling flight. It also sets the ailerons to negative when landing flaps are selected. This ensures full aileron control almost all the way to the end of the ground run. In other words, changing to negative flaps after touchdown isn't necessary. Finally, we added a paddle to the airbrakes to allow steeper and even safer landing approaches."

Right from the start the AS 33 design team was asked to implement a rigorous weight reduction programme. The results are impressive! The pure 18m glider tops the scales at just 285kg and, with a 75kg pilot on board, the minimum wing loading is as low as 36kg/m². When the 15m outer wing panels are fitted the minimum wing loading increases to 40kg/m², but both figures are still low enough to provide a definite advantage on weaker competition days.

With a total water ballast capacity of 170 litres the maximum wing loading can be increased to 60kg/m² in 18m and even to 62.5kg/m² in 15m configurations. Both inner and outer wing panels can carry water ballast and the tail tank holds an additional five litres. Fully ballasted and flown at a speed of 110kts (204km/h), the sink rate should be an astonishing 0.5m/s lower compared with the ASG 29, making this new glider a truly fearsome weapon in two different competition classes.

As most customers require an engine, the AS 33 is optionally available with the proven 24Hp (18kW) power plant, based on a Solo engine. The recent integration of an electric starter motor allows fully automated engine deployments and engine starts – all by way of a single switch. It has all but eliminated "finger trouble" and in terms of weight and range this drive unit is ahead of jet engines or electric drive systems.

Although the AS 33 comes with 18m



Head of development team Joschka Schmeisel enjoys the AS 33



Clear air below the main wheel for the first time

AS 33 TECHNICAL DATA:

Wingspan	18m	15m
Wing area	10m ²	8.8m ²
Wing aspect ratio	32.4	25.6
Best L/D	56	50
Empty mass	285kg	275kg
Max take-off mass	600kg	550kg
Min wing loading	36kg/m ²	40kg/m ²
Max wing loading	60kg/m ²	62.5kg/m ²
Min sink rate	0.47m/s (@400kg)	0.59m/s
Height of winglet	0.585m	0.585m
Tailplane span	2.3m	2.3m



Basic price: €137,000

■ www.alexander-schleicher.de
■ www.zulu-glasstek.co.uk

wings as factory standard, owners can tick the box for 15m tips on the option list if they like to compete in both 15m and 18m class. The outer panels are lightweight and just under 4m long and can easily be fitted or removed by a single person. Other optional goodies include LED flashlights in the leading edge of the fin, solar panels on the engine bay doors, a leather interior, an acrylic finish, bug wiper garages and oxygen equipment, to name only a few. A tail tank and a second avionics battery are now included in the standard package.

It seems that a very good glider can be made even better and, to date, as many as 50 customers have already signed up for an early slot on the production line. The initial production rate was set at three gliders a month. It will keep the factory busy for some time but, according to management, the production rate might soon be increased to reduce waiting times. As a "thank you" to loyal early customers serial production already started prior to the maiden flight to allow some pilots to compete in the new AS 33

at the forthcoming world championship at Stendal, Germany. No doubt, the eyes of all keen competition pilots will be on this newest of 15/18m gliders.

This only leaves one question unanswered. Why has Schleicher broken with tradition and dropped the first letter of the designer's surname in the aircraft's designation. Uli Kremer has the answer. "It is no longer a single designer, but a whole team of specialists who work closely together to satisfy the ever increasing expectations of today's competition pilots. Yes, Ulrich Simon was responsible for the bulk of the aerodynamic design, but Tobias Mörsel, Andreas Storch, Manfred Münch and Paul Anklam also contributed greatly, not to mention Joschka Schmeisl. Therefore, it wouldn't be fair to give credit to only one member of the design team."

It looks like we will have to get used to only an "AS" (for Alexander Schleicher) in front of the running model number. It avoids confusion and – if you ask me – it is also a change for the better!



Bernard Eckey is a level 2 coach, instructor, record pilot and former head coach for South Australia. He flies an ASH 30Mi and has an estimated 400,000km of cross-country flying in his logbook (including multiple 1,000km flights and one 1,116km FAI triangle). He is the Schleicher agent for Australia, New Zealand and Japan



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



This page, from top:

Booker Duo Discus, 315, winch launching during the UK Junior Gliding Winter Series Round 2 at Midlands...

...and landing after the flight
(Danny Richmond)

Wrekin's Will Dean on final in the club's Astir (Geoff Catling)

Facing page, clockwise from top:

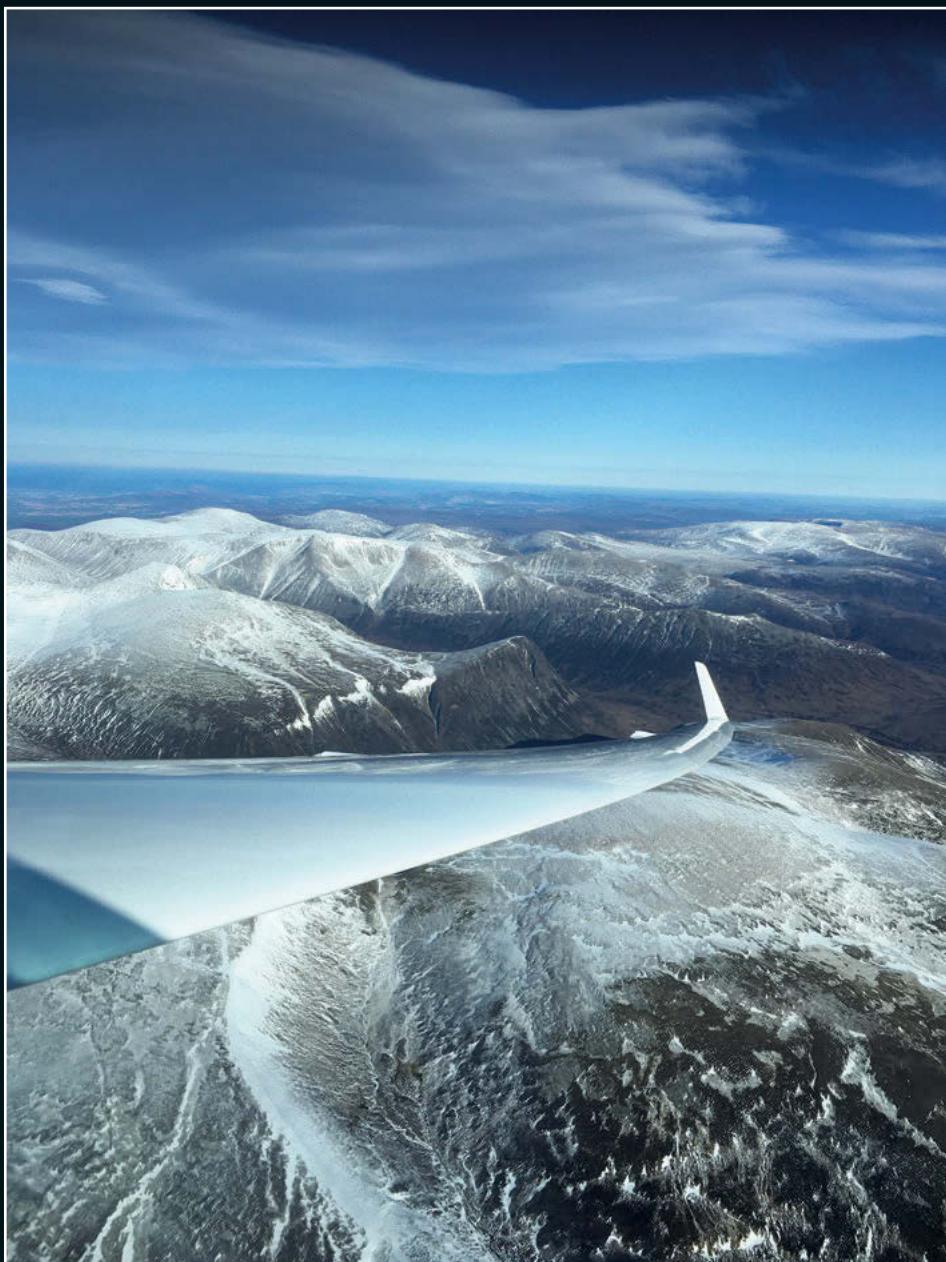
Looking down on RAF Wittering during a 400km out-and-return to Goole with Stefan Astley in September (Steve Lynn)

A dusting of snow on the Cairngorms in February 2020 (Roy Wilson)

Flying Duo Discus 315 in the southerly wave out of Denbigh on 7 February. Just turned Snowdon, heading back to Denbigh (Chris Gill)

Nigel Mallender sweeping past Truleigh Hill on the South Downs ridge in his LS8-18 (Dave Clews)

Ridge flying at sunset in 42kt winds at The Park (Daniel Weston)



DIAMOND WAS WORTH A WAIT

Cambridge GC's George Knight reflects on a flight that secured his Diamond badge – a tad over 53 years after his first solo

TO FLY the 5,000 metres from Caxton Gibbet roundabout to the clubhouse at Gransden Lodge takes about three minutes and 500ft; a trivial flight. Upend it into a gain of height and it's a different game altogether.

The Diamond height requires a gain of height of more than 5,000m (16,405ft) which, in the UK, is a choice between a cloud climb in a cumulonimbus (which will probably fail due to severe icing, hail and an airspace bust passing FL195 because you're going up at 20kts or more and can't stop the climb), or in mountain lee waves – vertical oscillations of the air downwind of high ground resulting from the disturbance to the horizontal air flow caused by the high

ground. Waves can reach many times the height of the hills and mountains triggering them. Wave occurs in many areas of the UK (Robert Theil has been known to get to over 9,000ft in wave over Cambridgeshire), but it is more frequent, and reaches greater heights, closer to the Welsh and Scottish mountains and the Pennines.

If only it was as simple as launching into wave, getting the best out of it and then landing back with a grin on your face. You will need supplementary oxygen. These days you usually need a transponder to climb above FL100 (10,000ft) and at FL195 begins the Class C airspace, which is normally inaccessible to sailplanes. Fortunately there are several clubs in the UK that not only get mountain lee waves, but also have agreements with Air Traffic Services to fly above FL100 without a transponder and to fly in Class C airspace in clearly defined 'wave boxes'.

Deeside Gliding Club is one such club and that's where I found myself with eight other Cambridge pilots and gliders in early October 2019. The actual flying to gain the Diamond height is not inherently difficult. For us southerners the difficulty is being in the right place, at the right time and properly prepared.

Preparation

The preparation started well before the long drive north. The ICG-approved flight recorder was recalibrated in March. It under-reads increasingly with height by five feet low down and 20 feet at FL220. Supplementary oxygen is legally required for extended flights above 10,000ft; at my age and for smokers it is recommended much lower. I planned to use it from 5,000ft upwards. My O₂ system is a four-litre steel bottle with a maximum working pressure of 200 bar (2,900 psi) so it holds 800 litres of oxygen at sea level pressure. The cylinder has a regulator that reduces the pressure to 1 bar. This low pressure O₂ is fed to an economiser that delivers the oxygen to the nose via a



#thisisinstructing
Teaching landings on an expedition

Start your training journey - chat to your CFI or search "BGA instructors"

cannula, or to nose and mouth via a face mask.

As you inhale, the slight drop in pressure is detected by the economiser which then delivers a pulse of O₂. As you go higher and need more O₂ the duration of the pulse of gas lengthens automatically to keep you sufficiently oxygenated. Three weeks prior to the trip, I realised it was several years since the cylinder's five-year test certificate had expired and panicked to get it tested via a dive shop in Bishop's Stortford. I got it back – empty – a couple of days before departure, but knew that Aboyne has filling facilities.

Another consideration is making sure the airspace file in your moving map (mandatory at Aboyne) is up to date and showing the main Aboyne wave box, as well as the nearby Aberdeen zones and airway P600.

Regarding the journey; to avoid arriving at Aboyne well after dark Phil Atkin and I stopped overnight near Moffat at the excellent Cauldholm B&B. We dined well in Moffat. We then decided to take the 'pretty' route from Perth via the Glenshee pass at over 2,200ft. It gave the trailer's brakes a good workout on the way down to Braemar!

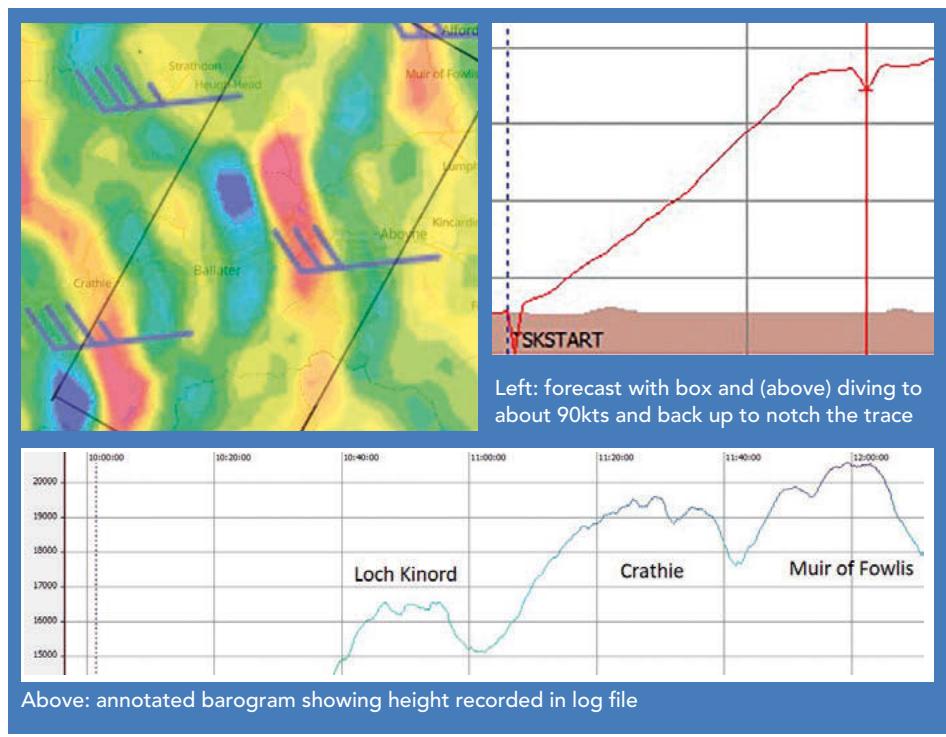
Wave box

Aboyne airfield, at 460ft amsl, is only a couple of miles west of Aberdeen's Class D airspace with its base only 2,540ft above the airfield's altitude. Over Aberdeen's airspace is airway P600 so precise navigation is appropriate. On days when wave is forecast above FL100 the Deeside club issues a NOTAM to inform that there will be gliders operating up to FL195 in the surrounding Class G airspace without transponders and, on two hours' notice, they can 'open' their 23nm by 10nm wave box that enables flight in Class C airspace to FL245 – also without a transponder. More than enough height to do a Diamond climb.

If you take your own glider you need to have viewed the briefing video on the club's website, but can choose whether to go for a site familiarisation flight with an instructor. To fly one of their gliders, a site check is mandatory. Having flown there previously (and failed to get the height by 266ft) I decided not to refamiliarise myself.

After our Saturday arrival there was limited flying on Sunday and Monday and then the wave teased us for the next three days with some good climbs but, for most pilots, not good enough for a Diamond.

On Thursday evening we studied the wave forecasts for Friday 11 October. RASP and



SkySight both provided wave predictions showing the forecast rate of climb at different heights between 400ft and 18,000ft. Both forecasts indicated Diamond height should be achievable. What I found remarkable was that, unlike thermal forecasts that predict conditions over large areas, the wave forecasts show exactly where they expect the waves to occur. The forecast shown (see top of page) is the 5,000ft prediction of a good wave (red is good, blue is sink) with a 30kt wind at Loch Kinord between Aboyne and Ballater, with weaker waves downwind at Muir of Fowlis to the NE and again upwind at Crathie. This forecast is almost identical to that on 11 October when I did my height. The best wave at this height was triggered by the Morven Mountain, which peaks at 2,862ft just seven miles from the airfield. The pencil rectangle approximates the boundaries of the wave box.

Andrew Watson, Phil Atkin and I, who were renting nearby Blackbull Byre cottages, got to the airfield reasonably early and had our two gliders rigged and ready to go shortly after 9am. Phil went first in 751 and I took off in Discus KPG at about 10am. The slight worry we had about excessive cloud was dispelled; the wind was pretty well straight down the runway, but the pressure was rather low, putting FL195 at only 18,700ft amsl. The upper air sounding from RASP predicted that the temperature at 20,000ft would be below -30°C.

Aboyne is the only place that I know where you get strapped in (very tightly in

George Knight completed his Diamond badge on 11 October 2019 with a flight from Aboyne in his Discus 2cT, reaching a height of 20,600ft

ON TWO HOURS' NOTICE, THEY CAN 'OPEN' THEIR 23NM BY 10NM WAVE BOX THAT ENABLES FLIGHT IN CLASS C AIRSPACE TO FL245 – ALSO WITHOUT A TRANSPONDER. MORE THAN ENOUGH HEIGHT TO DO A DIAMOND CLIMB

Right: George Knight's Discus 2cT on the runway at Aboyne on a stunning October day



George, as he appears on his 1966 gliding certificate, now proud owner of a Diamond badge

I CONCENTRATED GREATLY ON STAYING ON THE 15FT-WIDE TARMAC STRIP. ONE IS WELL MOTIVATED, THERE BE GRANITE DRAGON'S TEETH IN THE HINTERLAND



↙ case of vicious rotor) and ready to launch whilst facing away from the runway and then get pushed backwards, downhill, to the hard runway before being lined up and the tail dolly removed. I decided to wear my O₂ mask rather than my cannula since they are supposedly more efficient.

The EuroFOX tug taxied into place in front of me, I was hooked on and then concentrated greatly on staying on the 15ft-wide Tarmac strip. One is well motivated, there be granite dragon's teeth in the hinterland. The tow was uneventful. A bit bumpy in the 'rotor' but no worse than on a good thermal day at Gransden. You have to

decide when you think you are in wave when it becomes a smoother ride with an improved rate of climb. If you release early you may be back on the ground quickly! Leave it too late and you are eating into the height between bottom and top of the wave. I released at 3,000ft QFE and then concentrated on making sure I was established in a wave (the previous day I released too soon and had to burn some fuel). I was also aware that I needed to 'notch my trace' with a clear low point for my Official Observer (OO) to be able to measure from.

The IGC logger in my LX flight computer is calibrated to record 0 feet at a pressure of

An advertisement for Forbes Insurance. It features a black and white photograph of a glider with the registration 'G-CFAM' and the number '115' on its tail, flying against a blue sky with white clouds. The Forbes Insurance logo, which includes a stylized 'F' icon and the text 'Forbes Insurance Always Thinking Ahead', is positioned to the left of the glider. Below the glider, contact information is provided in yellow text: 'Tel: 0116 238 8874', 'info@forbesbrokers.com', and '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

1013.2 hPa so the logger's records are flight levels. The instrument allows me to display the exact height that is being recorded on the logger – I opted for this view for most of the flight.

I dived to about 90kts and then back up to notch the trace. I was quite pleased with myself for releasing in the Loch Kinord wave and remembering to notch the trace. The low point, as displayed on my logger, was a tad under 4,000ft so I now knew that I had to climb to above 20,405ft, as displayed on the logger, to get my Diamond height. I started to explore the extent of the wave to find the best area to work, keeping a good lookout since it was busy.

Somewhere above 5,000ft I was aware that I could not detect any pulses of O₂ – presumably because my whiskers prevented the mask from sealing around my face properly – so a further distraction whilst I changed over to my cannula. At about 9,000ft I thought it a bit noisy and raised the wheel. My climb rate improved somewhat.

Smooth ride

The up part of a wave is crosswind and, if you're lucky, marked by a lenticular cloud. Rather like hill soaring, you fly up and down the upwind side of the cloud with into-the-40kt-wind turns at the end of each beat to avoid a rapid exit downwind at a groundspeed of 80-90kts into cloud, sink and Aberdeen's airspace. Unlike hill soaring the ride is very smooth.

The climb up to FL165 over Loch Kinord was straightforward, but then I got stuck and decided to try another wave bar a few miles upwind near Crathie. I lost only 1,500ft getting there and that wave took me up to FL195 before I topped out again. I had to monitor the Oudie's moving map frequently because I was near the SW corner of the wave box. Returning to the original wave near the club delivered nothing so I carried on downwind, losing 2,000ft, to another prospect near Muir of Fowlis in the NE corner of the box. This delivered. I had in mind that I needed to go a couple of hundred feet over the minimum of 20,405ft so waited until I saw 20,600ft on the recorder and called it a day.

My main memory of the flight was the cold. I needed the cockpit air vents fully open to avoid condensation and then ice forming on the inside of the canopy; the OAT gauge slowly went down to the lowest mark at -30°C and kept on moving down. Condensation on my moustache froze. My feet and ears were

cold and I was shivering during the hour or so I spent above FL170 – and I thought I had dressed appropriately. Electrically-heated socks à la Robert Welford next time!

I was keen to get down to warmer air, but decided not to use the airbrakes so cruised upwind and around the local area for the hour and three-quarters it took to get down. This gave an opportunity to admire the fantastic Cairngorm scenery at leisure whilst not having to worry about rates of climb or looking for a better wave. SeeYou reported that I covered 417km during the flight – all within 30km of the airfield. I achieved the height by a margin of 187ft.

The 11th October was a good day for Cambridge badges with Phil Atkin, Steve Edwards, Peter Warner and me all claiming Diamond height, and Richard Brickwood Gold. Thanks to Andrew Watson for acting as OO – even when he could have been shivering in the wave!

My Diamond height completed my Diamond badge so I've received a copy of a letter from the FAI to the BGA stating that I have been awarded "badge number 7621 in the International Register of Glider Pilots holding the Gliding Gold Badge with three Diamonds" and BGA Diamond badge number 848. I believe that I'm entitled to wear the Diamond lapel badge – but that's rather like a tug pilot wearing a white shirt with four-bar gold epaulettes on each shoulder.

I think that the only thing I proved is that I'm a slow learner – it taking a tad over 53 years to progress from my 'A Certificate' for my first solo in 1966 to Diamond badge in 2019! See if you can do it quicker.

**CONDENSATION
ON MY
MOUSTACHE
FROZE. MY FEET
AND EARS WERE
COLD AND I
WAS SHIVERING
DURING THE
HOUR I SPENT
ABOVE FL170 –
AND I THOUGHT
I HAD DRESSED
APPROPRIATELY**



George Knight is an EASA instructor with a full house of badges and certificates up to Diamond. He originally trained at Dunstable, where he also started tugging with Tiger Moths. After an 18-year break raising family, George returned to gliding and towing with the Cambridge club.

#Thisisinstructing

Lucy Wootton
LSUGC Vice Chair
BGA Assistant instructor
BGA Inspector & ARC signatory

'what a wonderful opportunity to fly in some of the most beautiful places in the UK and help people to get as much enjoyment out of gliding as you do!'



SPEEDY SURPRISE

A reflective mood for Frank Jeynes' Arcus is captured in an earlier year by Rolly Bailey at Bidford Gliding Club

Frank Jeynes was surprised by a September day offering the right conditions for a fast 300km flight in his Arcus

ARRIVED late at the airfield, not really taking on board the forecast predicting quite a good day. It was 8 September and the end of the 2019 season was rapidly approaching. I was not terribly optimistic, but how wrong can you be?

When you're late, have you noticed how long it seems to take to get the glider ready when conditions are looking good and continuing to improve?

Then before taking it to the launch line there's planning a task, checking the NOTAMs, double-checking the weather forecast, map preparation and briefing the club member that was going to be flying with me – Richard Sharp. Richard is solo, but had

done very little in any previous cross-country flights so the planned 300km must have seen quite a big task to him. His views are alongside this article.

It all seems to take a frustratingly long time before you are ready and can take the glider to the launch line queue, but we eventually got into the air a few minutes before one o'clock.

The weather forecast was for light winds from the west going to north-west later in the day, with a cloudbase of 4,500ft perhaps going to 5,500ft later in the afternoon. The planned task was from Bidford to Waterbeach North (just north of Cambridge) to Westcott (east of Bicester) to Bidford – 300.8km when



using the FAI sector.

Over the five years since taking delivery of the Arcus, I have had a hankering to fly a 300km in excess of 100km/h. The days that you can do that in the UK are pretty limited and I thought it unlikely in September, hence my late arrival at the field. What a mistake to make! It was one of the best days I have known in gliding for some 37 years.

We quickly climbed and set off at 13:10 going through the start gate at 3,800ft. Using streeting, we did not turn for the first 76km and we were still at 3,700ft. From then on, using just four thermals for the first 140km, we turned Waterbeach at a fantastic speed of 116km/h. The crosswind leg of 93km was a bit slower, at 95km/h, jumping the streeting and the final leg of 67km was just under 120km/h into an 8km headwind. Richard did most of the flying and we arrived back at just under 1,000ft, remembering the 1,000m rule for the BGA Ladder scoring.

Our overall speed was 109.57km/h in 2hrs 44min 44secs and, as far as I can tell from the BGA Ladder, it was the fastest 300km in an Arcus during the 2019 season. It was also a good training flight for Richard, who shared the flying.

What a fantastic day! The cloudbase forecast was pretty accurate as well – we

touched 5,400ft just twice. The flight file is on the BGA Ladder.

Clearly, early September when the nights are getting cooler can be a time for planning some fast flights.

RICHARD SHARP'S OBSERVATIONS

BEING lucky enough to live within two miles of Bidford Airfield, I looked out of the window on the morning of 8 September to see what looked to be a promising day for soaring. However, I was somewhat frustrated as



Above left: streeting east to west, Bedford balloon hangars in the foreground

Above from top:
Crosswind leg looking east, some big gaps between streets;
Millbrook vehicle proving near Ampthill, Beds; crosswind leg, beautiful street to the west

Below: Frank Jeynes' 300km flight in his Arcus on 8 September, 2019 (Illustration by Steve Longland)





Frank Jeynes went solo at Long Marston in 1982. A Full Cat instructor, he is now three times an ex-CFI at Bidford. Frank has 4,500+ hours on gliding, 800 hours on power. He has all three Diamonds.



Richard Sharp started learning to glide in 2017 at Bidford and lives nearby. With approx 45 aerotows so far, Richard went solo in May 2018. This year he is working towards Bronze.

IT HAS DEFINITELY ENCOURAGED ME TO PROGRESS WITH MY BRONZE AND SILVER



Arcus coming in to land (Rolly Bailey)

✍ I was to be duty marshal for the day, running the launch point, and did not expect to be able to fly. It just goes to show how things can change when club members help each other out with covering each other's duties, as happened to me that day.

I had hoped for a back seat during the Bidford comp earlier in the year, but to no avail. Frank kindly offered for me to be "self-loading ballast" around lunchtime on the 8th, which I was keen to do as I had always looked forward to the prospect of a cross-country flight in an Arcus.

I had partially flown a cross-country flight to Worcester in a Janus the previous year, but for all intents and purposes this would be my first long-distance cross-country flight.

As Frank has mentioned, the lack of need

to turn into thermals and just use streeting for a significant proportion of the flight was something I had not previously experienced. To be honest, I was unsure what was down to the conditions and what was due to the performance of the glider.

I was lucky enough to also be given the opportunity to fly a fair proportion of the flight, the return leg mostly. I was very surprised how quickly we made the distance from Oxford to Bidford with little need to climb.

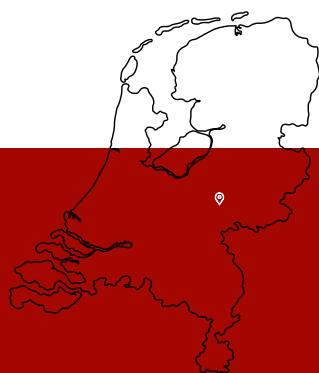
It has definitely encouraged me to progress with my Bronze and Silver this year. I just hope that 2020 will provide the conditions for some similar experiences as, this being my first proper cross-country flight, the bar has been set very high!



If Quality Matters

(Motor)Glider Repair and Maintenance
Avionics Testing and Calibration

www.sct-terlet.nl - info@sct-terlet.nl - +31(0)26 44 31 251 - Netherlands



KEEPING UP

Adrian Morgan's tentative first steps after being sent solo

MY FIRST solo flight at Easterton on 19 May 2019 – take off, circle and land without breaking anything, on a day with a gentle easterly down the strip, and the CFI watching – took me back to school open day in 1966. That was when, aged 13, my father let me drive his V-8 Buick Skylark convertible once round the playing field. On that summer's day, however, a dozen or so noisy friends had also managed to squeeze aboard, some on the boot, some on the bonnet, while two dozen parents held their breath.

That day was a milestone as a first solo must be for any aspiring pilot, albeit – and you will be told this in no uncertain terms – "just the first step". The next step, which dawned on me depressingly after the euphoria had faded, was to "stay up", an aspect of gliding that had never occurred to me, so busy had I been trying not to alarm the guy in the back.

I am not alone, as accounts in *S&G* will bear out. Many of us, it appears, experience this post-solo mix of elation followed by realisation and a measure of despair. It is the stage at which some solo pilots drop out, and I cannot blame them. There is a feeling that you are now being left on your own, to sink or swim (soar or sink). The leap from solo to Bronze is to reach the foothills of Everest, only to glimpse the peak a hundred miles away.

Until that first solo flight it had been a struggle just to keep the damn thing straight on the Perfo; keeping the wings level with the tug's, nose on the horizon, pulling off cleanly and managing to convince the fellow behind of my ability to synchronise stick and rudder, when a few minutes earlier on the ground run it had all been about moving them independently.

Staying up clearly entails finding some sort of lift, and staying in it, which when all's said and done, is the whole point of this gliding lark. It is not, however, the first priority of the learner. So intent had I been on getting it up and (crucially) getting it down in one piece that the notion of soaring, as opposed to plummeting as slowly as possible, seemed an impossible dream.



Aerotow at Easterton (Highland GC)

Over the next few days confusion mounted in direct proportion to Piggott's chapter on thermalling becoming more dog eared. Tighten up in the lift, wait a few seconds, find the core, lift, sink, best glide angle, circle, lots of diagrams, best speed, angle of bank, etc, etc, more diagrams... In despair you ask venerable members of the club which part of the sky looks good, and the suitability of various clouds. How about that one? "Nah. No definition. Too ragged," etc, and, in any case, it will have dissipated by the time you are aloft. "Best just to go up and sniff about a bit..." Right.

The cloudscape – which you had an hour ago admired for its majesty and towering splendour – has now transformed itself into a flat, grey layer, which they all agree is "pretty hopeless", and even an idiot like you can see that. Nevertheless, one of the hot shots finds weak lift. He is down in an hour; you would give your right arm for half an hour.

In for a penny (or rather a £30 tow). You pull off at 2,000ft and are down in 15 minutes, which represents an outlay of over £2 per minute, complaining of "sink all over" (a standard excuse, straight from the BGA Instructors' Manual). The next flight is marginally better, you circle slower, speed control is better, you relax your hand on the stick, you land after 25 minutes, and the cost per minute has reduced by 50p. You are making progress and, more crucially, it is getting cheaper.

THE LEAP FROM SOLO TO BRONZE IS TO REACH THE FOOTHILLS OF EVEREST, ONLY TO GLIMPSE THE PEAK A HUNDRED MILES AWAY



Adrian Morgan soloed last year at Highland Gliding Club. A keen sailor, he first experienced gliding 30 years ago as part of a journalistic assignment that resulted in a slim paperback book, *Gliding in 8 Days*.



PIECE OF CAKE?

A small gate from a back garden leads into the field with four padlocked gates – just one of the obstacles to be overcome in the PIK retrieve

Landing out just a few miles from the club must make for an easy retrieve? Not necessarily, as Booker's William Parker reminisces

IT WAS going to be a piece of cake. George Darby had flown 293km of a 305km task on a difficult day 5 of the Booker Regionals, with just two finishers. Rained out on his final glide, he landed his PIK in a field at the foot of the ridge near Lewknor. It was about 5.30pm when his retrieve call came in so, with Curry Night starting at 7pm, it seemed a dead cert to hitch up, drive 10 miles down the motorway, de-rig and get back in time for the poppadums.

George was at the roadside, on his phone, looking a bit anxious when John Hubb and I caught up with him. We could see the glider way out across a cut rape field. It looked like

bish-bash-bosh and away. But... "the gate is locked," said George ominously, so we looked for ways to lift the gate off its hinges, but that was never going to work.

Then George gets through to the owner of the field, who wants £100 to turn out to unlock the gate. Stuff that! There must be another way into the field. It's a huge field with at least four gates.

An hour later we have found all the gates and they are all padlocked, in some cases with three or four locks. (Note: a pair of bolt cutters and a spare padlock in the trailer can be useful when retrieving in traveller country.) There's a long conversation about how many people it takes to carry a glider out over a five-barred gate – answer, at least six or eight.

George suggests we head for the nearby Leathern Bottle pub, the idea being to buy a huge round of drinks, maybe several, until the locals are so pissed they can be persuaded to turn out and carry the glider over the gate. Drawbacks: it will take forever, cost a fortune and they would probably drop it. The icing was coming off that piece of cake.

The owner of the field had agreed to give George the key, in Maidenhead, the following morning. Facing defeat, we

Six issues for the price of three!

**SAILPLANE
& GLIDING**

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. www.sailplaneandgliding.co.uk

Photo: Alastair Mackenzie

prepared to take covers and a trestle over to the glider, tuck it up for the night and head for the curry house.

As we walk out to the glider – in case you don't know, walking across a cut rape field in shorts with no socks is like wading through a carpet of clawing kittens – when lo and behold a figure is racing towards us on a quad bike.

How did he get that quad bike in here? It turns out this chap, a really helpful guy named Paul, has a small gate from his back garden into the field and he's willing to give it go! We drop the covers and trestle and climb onto the back of the quad bike to investigate. Now we hare along the side of the field, being flayed by overhanging nettles and briars.

When we get to the gate it looks do-able. The only thing is, we'll have to de-rig in the field and carry the wings, and then wheel the fuselage, through his back garden – passing a low privet hedge, avoiding a trampoline, turning left onto a gravel path, through the orchard and around the house to where it is hoped we can position John's car and the trailer.

That last point turns out to be easier said than done. The piece of cake is now shrinking fast.

Push 'n' pull

While George and Paul tow the glider to the gate, John and I drive around through Lewknor to Paul's front gate. Such is the angle of his driveway that the only way to get the trailer through the gate is to unhitch and push 'n' pull it up a short slope and through the gate.

Despite combined ages of over 140, this we manage to do, but a sense of humour failure is in the air.

And so the de-rig starts. Things look up when Paul disappears and comes back with mugs of tea and a box of chocolates. OK, it wasn't cake.

As the many bits of kit required to de-rig the PIK are put in place, Paul's wife appears and loudly announces: "You wouldn't get me in that thing for a million pounds", which is a shame because her husband is warming to George's offer of a trial flight.

It is way past their eight-year-old son's bedtime by now and the sun is setting. But he gets up to join the party and holds a wingtip while ex-schoolmaster John extracts various bits of schoolboy info, such as the nickname of the boy's

unpopular new headmistress – was it Mrs Piggy Winkle?

So off come the wings and each is carried through the hedge, across the garden, through the orchard, onto the driveway, around the house and into the trailer followed by the fuselage rolling on the mainwheel, with more course corrections than Apollo 13. All now with the help of mobile phone torchlight.

Vanished

The piece of cake had by now vanished. By the time we got to the curry house at 11pm they were closed, so too was the chip shop. John did get his fish dinner – eventually.

The retrieve had turned into a bit of an epic, but we were triumphant. George's PIK was back in the trailer park. There was no cake or curry, but we did get that cup of tea and the chocolate.

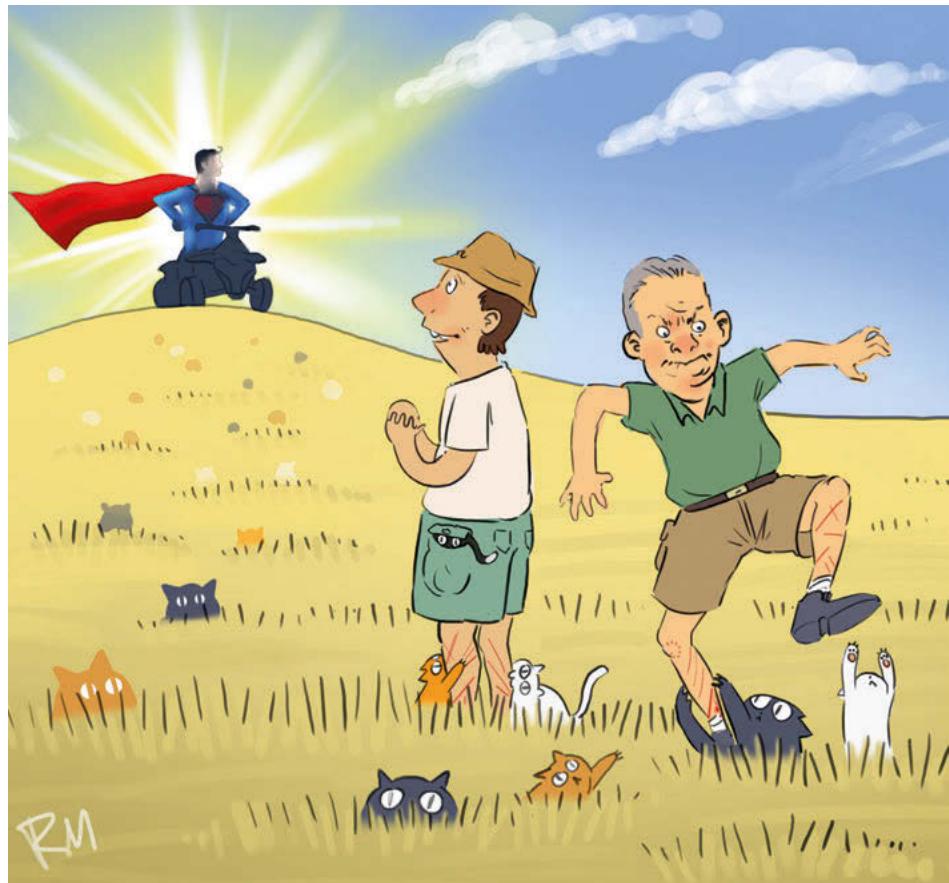
It was satisfying, too, imagining the owner of the field checking all his locked gates the following morning and wondering "how the hell did they get an aircraft out of here?".

By the way, the next day Paul phoned the club to book his trial flight.

WALKING ACROSS A CUT RAPE FIELD IN SHORTS WITH NO SOCKS IS LIKE WADING THROUGH A CARPET OF CLAWING KITTENS

■ Do you have a landout story – from heaven or hell – that *S&G* could include in this series of retrieve tales? Please send it to *editor@ sailplaneandgliding.co.uk*

The saviour cometh!
Cartoon by Ross Martin



ROOS ON



Liz Sparrow comes in to land at
Lake Keepit (Valerie Phillips)

N RUNWAY



Avoiding the kangaroos was just one challenge faced by Team GB at the Women's Worlds held at Lake Keepit, Australia, as bushfires raged

LET me tell you about some of the fun we've had at the 10th FAI Women's Worlds at Lake Keepit, New South Wales, Australia, **writes Team GB's Liz Sparrow**. And goodness, did we have some fun! Do visit – you won't regret it. First, the context in which the fun occurred...

Keepit Soaring is 350km north of Sydney, 200km inland. It's a large grass airfield with a Tarmac strip for the main launch direction and is run by the friendliest

most helpful people ever. Field elevation is 1,150ft, and the surrounding territory is plains studded with hill and mountain ranges. To the east is the Great Dividing Range and then the coastal plain. Locally, the ridge lines run north/south-ish, with Lake Keepit in a flat valley between the Carroll Range to the west and Manilla Range to the east. These run up to the north to an extensive area of rugged, rocky ridges peaking 80km north of Keepit with Mount Kaputar around



Standard Class Champion
Sarah Arnold, USA,
reflects on her new title...

AT MY first world championships in Argentina, I felt in my heart the pride of those champions as they heard their national anthems played, and wanted so badly to experience one of those moments for the United States. This was my third time competing in the WWGC, with a Silver in 2017 and a Bronze in 2013. I have worked very hard towards this goal and am so excited it finally worked out.

The contest itself was great. I was fortunate that Australian pilot Kel Burgess let me rent his Discus 2b, along with his hangar and car. The logistics couldn't have been easier, a real turn-key operation. Kel and his wife Tania treated us like visiting royalty, opening their home and hearts to us on our way to and from the contest.

Although we did lose a couple of days due to poor weather or visibility due to smoke from the awful fires, the weather was generally good, fast and fun. It would have been almost a disappointment to go without one good distance day and, although I was disappointed with my results on that particular day, we all came home with grand adventures to tell from our various landouts.

The organisers did an outstanding job and, despite the changing conditions, each day was well run.

Now that I'm home, I find myself juggling a few things. First there's running Chilhowee Gliderport in Tennessee, where there's always something that needs doing or fixing or flying. And then I'm trying to come down to earth after winning in Australia. That was an amazing experience, but I need to focus on what's next. For me that's the World Gliding Championships in Stendal, Germany, this July and I want to be prepared. I'm flying in the 20m Class along with Karl Striedieck. We've been practising together for more than two years and I'm looking forward to another exciting competition.



L-R: Ayala Truelove, Claudia Hill, Liz Sparrow and team captain Jeremy Pack (Valerie Phillips)

↙ 5,500ft. North and west of Kaputar Range, it's flat as far as the eye can see and beyond. Mount Kaputar tends to make the weather for Keepit with great convergences. One hundred kilometres to the south, the Liverpool Range running east/west does much the same. Airspace is simple: keep away from Tamworth, the local regional airport and out of the military ranges generally only above 9,500ft – however, this being Australia, that's a height you have to keep an eye on!

So much for the geography, now the climate crisis update. Temperatures peaked at over 43°C. New South Wales has had a three-year drought with what should be monsoon season bringing only dry thunderstorms – lightning starts many fires and people start others. You may have seen the video of someone beating in past boats on approach to Lake Keepit – the reservoir is now at 0.6 per cent.

Smoke from fires in our task area and towards the coast affected both visibility and soarability – vis stopping flying on some days. From the soaring perspective, the smoke has a triple-whammy stabilising effect on the airmass – firstly it reduces the ground heating, secondly the warm smoke particles heat the atmosphere and, thirdly, it acts as a blanket overnight, keeping the heat in. All this meant that the conditions were 'mediocre'... with only 10-11,000ft cloudbases and rarely over 10kts average climbs available... These were the conditions in which we were privileged to race!

I want to tell you about three flights, one pre-comp and two in the comp:

Ton-up practice

The first couple of days I spent generally orientating myself, rigging the glider, etc. Thermals seemed to behave differently, it was so hot I wasn't comfortable in the cockpit, there were unlandable areas all around – I couldn't conceive of going cross-country effectively, let alone racing hard for a fortnight. Then... there was a convergence along Kaputar and, along with another club visitor, I set 310km out to the NW, down to the SW and back.

Manilla's thunderstorm meant we couldn't quite make our first TP, however the run along the convergence was a total hoon, running at 100kts+ at cloudbase. One climb off the end of the convergence, round the TP and nice energy south on track. Running whilst climbing back to cloudbase, we were only halfway round, but weren't far off final glide! After a wild run home and based on where we turned at the first TP, we did 305km at 163km/h. What a lark! I think my comp might be OK after all.

8 January

Day 5 – 560km @151.14 kmh. Second – 0.78km/h off the pace! The 18m Class raced right up to the Queensland border today – and, in Australia, going all the way to the edge of your country is a pretty big deal!

Today was notable for good energy lines and big climbs, mostly in the company of the French pair, Mélanie Gadoulet and Anne Ducarouge – pushing hard all the way round. The terrain after we left Kaputar behind was flat flat flat, so it was cloudspotting for lift. I found 8kts just beyond the Queensland TP, which took us to cloudbase at 10,500ft, then another couple of 8-knotters set us on final glide with a nice run back along Kaputar to the finish. Fast and easy!

14 January

Day 9 – 501km @ 156.1km/h. Fourth – 0.5km/h behind Aussie pilot Ailsa McMillan, day winner. I had a great run north along the Manilla ridge to take 9kts at Mount Bora. With fantastic energy marked by cu, I glid past the first TP before taking 5kts to avoid getting too low, along with Australian pilot Ailsa McMillan, who had the same idea.

On the plains it wasn't working so high – but knowing there were strong thermals around, I couldn't risk taking a weak one. Low down was HOT HOT HOT and I was very relieved both mentally and physically to hunt out 8.5kts back up to nearly 10,000ft.

Ailsa rejoined me and we ran round the final TP together. Then it blued out on track, what to do? A turn decisively off track to stay with the cu and take the Kaputar route home initially seemed the choice – but approaching the high ground the vis deteriorated badly with smoke and overdeveloped cu. Sliding carefully onto the ridge line – phew! – an absolutely honking run home with speed and final glide margin increasing all the way to beat low over the non-lake to the finish. Keepit delivers another great day out!

Mélanie and Anne flew exceptionally well and consistently throughout the comp – very worthy winners. I ended up just losing third place to Germany's Katrin Senne on the last flying day, but overall I'm delighted to have had great flying in extreme, strong and challenging conditions. And I'm proud to be part of the Silver-medal winning team alongside pilots Ayala and Claudia, team captain Jeremy and crew Charlie, Nick and Ian.

CLAUDIA HILL'S CLUB CLASS EXPERIENCE

WHAT an opportunity – to fly our own gliders, in Australia, to represent the British Team in the Women's Worlds. And what a massive undertaking, from a logistics, cost and time point of view.

SuperCrew™ Nick and I arrived in

Australia as soon as work and budget would allow us to so I could get some much-needed practice in. Disappointing weather, as well as time and money constraints, had limited my ability to practise in the UK beforehand. We flew into Melbourne to pick up a rental car and an LS4 trailer we had kindly been lent, and we started our adventure with a quick 11-hour drive from Benalla to Lake Keepit.

Liz (18m Class) and Ayala (Standard Class) were already at Lake Keepit, and unfortunately so was the smoke from the bushfires. The fires were far enough away not to threaten us directly, but close enough for the smoke to affect us. So instead of two weeks of solid practice I managed only a couple of cross-countries and some local-ish soaring. On several days before the comp we couldn't fly at all because the visibility was too poor.

At least I had the chance to explore the area and conditions a little bit before the comp started. And for the comp itself the conditions improved enough for us to have 10 flying days, nine of which were contest days, plus three official practice days.

New South Wales' drought meant there was not much left of the lake that gives Lake Keepit Soaring Club its name, and what apparently used to be a lush, fertile landscape was a stark, but beautiful, patchwork of different shades of red, brown and terracotta. Any wind would whip up massive dust storms on the airfield and, of course, every single thermal was very visible as it crossed the field in the shape of a large dust devil.

Lake Keepit is apparently different from places like Narromine and Benalla in that it doesn't provide uniform conditions over a

RESULTS OF 10TH WOMEN'S WORLDS, AUSTRALIA, 3-17 JANUARY, 2020

Standard Class

- 1 Sarah Arnold, USA, Discus 2
- 2 Aude Grangeray, France, Discus 2A
- 3 Ayala Truelove, UK, LS8

18m Class

- 1 Mélanie Gadoulet, France, JS3
- 2 Anne Ducarouge, France, JS3
- 3 Katrin Senne, Germany, JS3
- 4 Liz Sparrow, UK, ASG 29

Club Class

- 1 Elena Fergnani, Italy, Discus
- 2 Christine Grote, Germany, LS4
- 3 Céline Grote, Germany, LS4b
- 6 Claudia Hill, UK, LS4

■ <https://wwgc2019.com/>
■ www.britishglidingteam.co.uk

SPONSORS

A BIG thank you from the team to our sponsors and supporters: SkySight, Naviter, Navboys, LX Avionics, Zulu Glasstek, Condor and everyone who contributed to our crowdfunding effort.

Below: Flying over Split Rock Dam (Claudia Hill)



WHEN YOU DO MOST OF THE FLIGHT BETWEEN 5,000FT AND 10,000FT IT'S EASY TO UNDERESTIMATE DISTANCES

USE OF TRACKING DATA AT THE WWGC2019

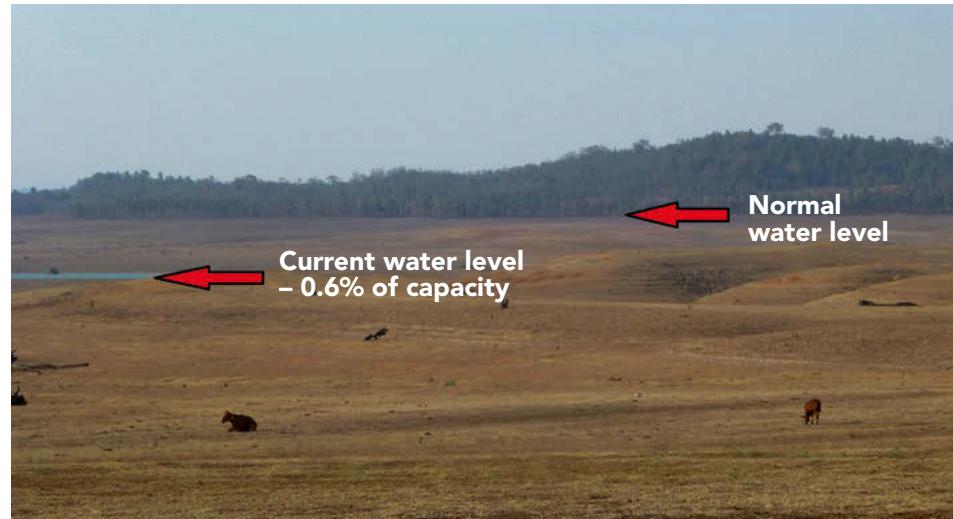
AS IS routine during international competitions, at the recently completed 10th FAI Women's World Gliding Championship a competition tracking system was in use by all competitors. The data, including locations and climb-rates of competitors, was available to all teams with a 15-minute delay. A local competition rule was in place which emphasised that only tracking data with a 15-minute delay could be accessed by competing teams.

Towards the end of the competition and following protests by several teams about alleged use of real-time data by the Australian team, the Australian team pilots were each penalised 225 points for 'unsporting behaviour'.

It is the BGA view that:
● The use of real-time data in contravention of the rules is at serious odds with the expected standard of sporting behaviour and must not be tolerated.

● Incorrect procedures may have been applied in response to protests made about the use of real-time data.
● Further action is needed to ensure that no similar occurrence occurs in the future.

The BGA's concerns have been expressed to the IGC through our IGC representative. The BGA looks to the FAI IGC to investigate these matters and make any necessary adjustments to its rules and practices in the areas of tracking data, the definition of and penalties for unsporting behaviour and cheating, and the handling of protests.



The lake which gives Lake Keepit its name is at just 0.6 per cent capacity (Liz Sparrow)

↙ large area. The days got going reasonably late (1-2pm), so we didn't do massive tasks (usually around 300-500km depending on class – have a look on Soaringspot.com if interested). Conditions were varied: often starting out blue, which I initially found quite difficult (where do you find the triggers when everything just looks brown? Farms, lines of trees, little hills seemed to work), some cu later on, and often good convergence lines on the ridges. There are several different ridges and mountain ranges to consider – it never got boring!

On one day we all set off and, during course of the flight, visibility got worse and worse. Unfortunately right over unlandable hilly terrain. Eventually the organisers cancelled the day remotely as per the local rules – this had been agreed to allow for worsening smoke problems – but now we all had to get back to Lake Keepit, either the long way round or back through the hills and the smoke. Not a pleasant experience when you can't really see landing options and know there aren't a lot of them, but we all made it.

Being on final glide from 100km away was also a new experience, as was a sustained 11kt climb to 10,000ft. My perception of scale got very distorted, too – when you do most of the flight between 5,000ft and 10,000ft it's easy to underestimate distances. Mount Kaputar, which felt like it was about 30km to the north, was actually 70km away, and the Pilliga Scrub, a vast expanse of forest west of Keepit, was also rather further away than I'd thought. And of course the sun was in the wrong place, who'd put it up north?!

In 42 degrees heat I was glad to have several damp cooling scarves and headgear.

I made sure I stayed hydrated (1.5 litres of home-made sugar/salt hydration solution beforehand, 3 litres while flying, and another 1.5 litres before bedtime seemed to work), and I tried to hide from the sun by wearing long-sleeved shirts, trousers and a hat, plus factor 50 at all times.

Another, non-flying, highlight was the wildlife. It was like a veritable zoo around the club: kangaroos on the airfield (I had to modify my landing area on more than one occasion), a koala which spent the whole duration of the comp sitting in a gum tree and watching us with mild disdain; pelicans and wedge-tailed eagles to share thermals with; parakeets and all sorts of other colourful birds; a local echidna; iguanas; lizards and even a couple of snakes.

I rarely look at the daily results because I find that if I did well the day before it just puts me under unnecessary pressure, and if I did badly the day before it just depresses me. There's nothing I can do about yesterday's flight so I'm better off focusing on today. Having said that, I ask Nick to download traces of certain flights and certain competitors to compare decisions people

Team GB with medals and trophy (Valerie Phillips)





Keeping an eye on Team GB (Claudia Hill) made at specific points on a day or see what they did differently.

Overall I came sixth in this, my third, Women's Worlds, which I'm very happy with, especially considering the stress, cost and anguish of getting there. I'm glad I had this opportunity.

My highlights:

- Thermalling with a whole gaggle of pelicans
- Gold height in thermals below cloudbase
- 356km at 123km/h in a dry LS4
- 11kts average to 10,000ft
- Lots of interesting wildlife in addition to our own comp koala
- The “international school exchange” atmosphere – it’s always great to reconnect with friends from the other teams and to make new ones.

Thanks must go to:

- Max Kirschner for taking charge of the biggest logistical challenge, namely to get our gliders to Australia and back – it would all have been even more stressful if he hadn’t organised the container shipping for us.
- Claire Scutter and Andy Maddocks, John the LS4 owner from Tocumwal, and the other kind people who lent us cars, trailers, hangar space, tools and a hand.
- Kerry, Michelle, the Harrys, Wendy, Val and all the other members of Lake Keepit Soaring Club – what an exceptional bunch of helpful people, they bent over backwards to help us.
- Our crews Nick, Charlie, Ian, and our team captain Jeremy – we couldn’t have done it without you!
- And, of course, the comp organisers and everyone at home who supported us behind the scenes and cheered us on.

› KATRIN SENNE: BRONZE 18M CLASS

The *Thermal Podcast*'s Herrie ten Cate interviewed Germany's Katrin Senne, who flew a JS3 in the 18m Class, finishing third after a hard-fought competition. An extract is published here:

HtC: Now you're flying a relatively new JS3. Did that make the difference between winning and losing on certain days?

KS: The JS3 is one of the gliders of the next generation. At the moment, I'm convinced it's the best performing glider you can buy in 18m Class and 15m Class. The French were also flying JS3s. At the high speeds we had in Australia I think the new generation gliders have an advantage, with the high wing-loading especially.

HtC: Talk to me about some of those speeds. I saw one day that you won, I think you had an average speed of 125km/h over a 500km distance?

KS: Yes. We also had one day with 150km/h. When conditions are good it's just unbelievable how the JS3 runs. It's like a racing horse.

HtC: Describe the flying sensation at those speeds.

KS: We had those wonderful cumulus clouds and high cloudbase. We go between the thermals cruising at 230/240km/h until you hit the next thermal. All of those days, I flew with 600kg max take-off weight so it's a 60 wing-loading. It doesn't feel like a heavy/heavy glider. It is still very agile and you can handle it easily around the corners and you still have the feeling for the air mass and where the thermals are.

HtC: What were the highs and lows for you in this particular contest?

KS: I did my day win and it was a very tricky AAT (assigned area task) day with a lot of spread out thermals and thunderstorms. And cloud-streetering in between and AT areas that were just covered by rain showers. That was my last day. It was for sure a “high”.

The “low” was in the beginning. I think we were all shocked when we did our training flights at how dry the country looked from above – just like a desert. You couldn’t see any green anywhere.

And on one day, I missed a control point and got a few penalty points, which was a stupid little mistake.

HtC: Here's a question for you ... women pilots are at the top of the game... total equality in the cockpit. Why do we still have separate women's competitions?

KS: The original thought was to encourage more women to come to competitions. Somehow, we still have them. There shouldn't be a reason why a woman couldn't be as good as a man...

HtC: Let's face it, from a flying point of view, you're equal if not better.

KS: You are right. But the fact is we still don't have enough women in gliding. I think we are still, on average, only 10 per cent. So that's a shame. At our club, every year we get one or two more girls starting to train, but all in all, I think

women's competition flying can still be improved... still be more.

HtC: What is it about racing sailplanes that makes you so passionate?

KS: I've been flying for 35 years and every year I fly competitions.

I like competition flying for many reasons. First, the company of friends. Because a competition lasts for at least a week you have an intensive time with friends and, of course, international gliding is a big family and you get to know many people. The second is comparison with other competitors, trying to fly as fast as possible and as well as possible.

It's the racing spirit which I still like and have always liked. You have to have it from the beginning. And every new comp day is a new challenge. You have to fly in weather conditions at a competition where you normally say “this looks really rubbish, why should I go flying?”. And then, however it turns out, you could have done the task or you have done the task, which is really astonishing.

And I like adventure. Sometimes, of course, you also get some adrenalin and that's the racing spirit which I love.

(Katrin is also the European representative for Jonker Sailplanes.)

■ <http://thethermalpodcast.libsyn.com>





Conference attendees were met with a display in the hotel foyer by the Lasham-based Gliding Heritage Centre



Schleicher Managing Director, Uli Kremer, points out the evolution of glider design and construction



Ian Gallacher (left) and Rob Barsby of the gliderFX display team drop in on sponsors Sydney Charles

BACK

Glider pilots helped celebrate 90 years at the annual BGA Conference and AGM, held at the Nottingham Belfry on 29 February, 2020

AROUND 430 glider pilots, as well as representatives from the CAA GA Unit, the CAA airspace department and the DfT GA team attended this year's packed BGA 90th Anniversary Conference, which was organised and arranged by the BGA office team and part-sponsored by Sydney Charles Insurance.

The day got going ahead of the main conference with two parallel sessions for club officials: a Club Chairmen's forum led by BGA Chairman Andy Perkins and a CFI/Senior Instructors' forum led by Mike Fox, the BGA Training Standards Manager.

The conference began with a welcome from Andy Perkins, followed by a short session during which Andy reflected briefly on the Association's past, present and future and, in response to questions from CEO Pete Stratton, provided his thoughts on the ongoing success of Junior Gliding and reflected on BGA priorities for the future.

Schleicher Sailplane's Managing Director, Uli Kremer, was introduced to the platform. Uli took a full house through a fascinating and informative presentation providing insight into the evolution of glider design and construction resulting in some brilliant and highly successful creations under a variety of designers, bringing us right up to date with Schleicher's latest creation, the AS 33, which was available in the exhibition hall to try for size, feel and admire.

Following a coffee break, Colin Sword of the BGA Instructor and Examiner Committee provided an overview of training associated with the Sailplane Pilot Licence (SPL) and noted that the BGA is currently developing course programmes and other resources for club use. Noting the changing airspace environment that glider pilots need to be taught to deal with, Colin then introduced the next presenter, Paul Ruskin, who with Andrew Watson has designed a revised Flight Telephony Radio Operators Licence (FRTOL) course that with a gliding relevant syllabus, online training content and a revised test format, results in a much more attractive and useful product for glider pilots. Paul went on to note how the revised FRTOL could be credited against radio telephony training, which is required as part of the SPL theory training. The revised radio licence course will be available in 2020 and it is expected that increasing numbers of glider pilots will want to qualify. Paul made a plea for potential new FRTOL examiners to get in touch with him via the BGA office.

Ahead of the BGA awards, a short video was shown during which the Secretary of State for Transport, the RT Hon Grant Shapps MP, congratulated the BGA on its 90th anniversary, highlighted the importance of gliding as a starting point in aviation careers for many, reflected as a GA pilot on his own experiences of gliding, including

TO FUTURE

recently at Lasham, and noted continuing Government support for GA as an important part of UK aviation.

BGA Diplomas are awarded to nominated individuals for outstanding service to a BGA club or the interests of UK gliding. This year, BGA Diplomas were presented to: Andrew Roch (London GC); Brian Palmer (Nene Valley GC); Andy Davis (Bristol and Gloucestershire GC); The Mintel Simulator Team (Cambridge GC); Mark Burton (London GC); Roy Wilson (Deeside GC) and Ann Parry (S&G indexer). The Bill Scull Safety Award was awarded to Graham Morris (Bristol and Gloucestershire GC) for his long-term support of gliding safety initiatives. The Saundby Sword was presented to Kent GC and Stratford GC for their successful work in developing winch signalling systems. The national award of an OBE to David Roberts was recognised and the RAeC Awards were announced ahead of an awards event in May 2020. The Launchpoint charity Caroline Award was presented to Danny Richmond (Wyvern GC). Congratulations to all our award recipients!

Formal business

Following lunch, the formal business of the AGM took place under the Company Secretary, Anthony Smith. The Minutes of the 2019 AGM were approved; the Annual Report was adopted; the Revenue Account and Balance sheet for the year ending 30 September 2019 was adopted; the budget for the year ending 30 September 2021 and annual subscription rates were adopted, amendments to Operational Regulations 18 and 20 were adopted, and auditors Haines Watts were re-appointed. In accordance with the Articles of Association and following the retirement by rotation of Bill Craig, Lisa Humphries and Nick Bowers, nominees Peter Hibbard (Anglia GC), Nick Garland (London GC) and Matt Page (Cotswold GC) were approved as Executive Committee members. The Company Secretary thanked those present and closed the meeting.

Pete Stratten then presented a piece on challenges and opportunities for the next 10 years. Reflecting on big issues affecting everyone, including carbon emissions, societal

changes and land prices, Pete reflected on the many positive attributes of gliding and how clubs supported by the BGA might choose to take advantage of opportunities, including increasing interest in recreational activity that 'addresses all the senses'. He went on to consider regulatory challenges noting that developments in UK and at EASA have resulted in a revised, almost risk-based approach to regulation of GA, and that the BGA is working with others to support the current Government commitment to championing GA, which, of course, includes gliding.

Moving on to the ever-important topic of airspace, Pete noted that the airspace modernisation strategy as presented will, of course, minimise inconvenience to airlines but does not address the issues that need to be resolved through a lower airspace strategy. He went on to highlight that the CAA has been directed to minimise controlled airspace, and that, subject to an expected change in law, CAA powers to make useful changes to airspace are coming.

Reflecting on the need for GA subject matter expertise, he described how A4A, which was initially developed to ensure the needs of VFR in lower airspace are represented in a future airspace strategy and has subsequently provided CAA and GA with excellent inputs that support airspace modernisation, is no longer receiving support from airspace modernisation funds, thus leaving a significant gap. Pete went on to describe how lower airspace changes connecting to upper airspace through previously established fixed points are utilising vintage separation, containment and ATS standards with insufficient or no flexibility, resulting in even more controlled airspace than before. Touching on Part-ATS, an EASA ruleset which requires traffic under air traffic control to fly in controlled airspace, Pete noted the potential impacts of CAA-led and air traffic controller centric solutions, which could result in a threefold increase in CTRs. Integration not segregation should be the way forward, but that seems further away than ever right now. Steve Noujaim from the

NATIONAL AWARDS:

BGA Chief Executive Pete Stratten reported a number of Royal Aero Club awards, to be presented at an awards event in May: Prince of Wales Cup to Junior British Gliding Team; Bronze medals to Jake Brattle and Paul Conran; RAeC Certificate of Merits to Max Kirschner, Rod Witter, Lucy Wootton, Tim Macfadyen and Debbie Carr; Nexus trophy to Jeremy Pratt.



The 430+ attendees enjoyed an interesting range of presentations

THE CAA HAS BEEN DIRECTED TO MINIMISE CONTROLLED AIRSPACE, AND, SUBJECT TO AN EXPECTED CHANGE IN LAW, CAA POWERS TO MAKE USEFUL CHANGES TO AIRSPACE ARE COMING

■ Photos by Paul Morrison

■ TURN TO PAGE 46 AND 48-49 FOR MORE CONFERENCE COVERAGE



CFI AND SENIOR INSTRUCTORS' FORUM

■ It was great to be able to welcome CFIs, senior instructors and other members on the morning of the 2020 BGA conference. Basil Fairston briefed us with some humour on the common and perhaps avoidable mistakes that pilots make when planning and applying for Badge flights. Alison Randle addressed the group, while asking for ideas about how clubs can support those pilots with low confidence. She asked senior instructors to get in touch with their ideas on how to retain not just the members who are willing to ask questions and 'push' a little to get the training they want, but those who don't ask!

I then took over to ask some more questions – this time for advice from the experienced instructors in the room about how we can persuade our pilots to think ahead when flying. The ability to have contingency plans and the wherewithal to put those plans into action, however unpalatable, is important, rather than accepting your fate and 'travelling hopefully'!

As always, great discussion and lots of food for thought for me as well as, I hope, being entertaining and thought provoking for the people in the room.

Mike Fox

CHAIRMEN'S FORUM

■ Andy Perkins led a discussion with club chairmen that considered among other topics volunteering at clubs, instructor training and contingency planning. Steve Noujaim provided an airspace update.

■ The BGA would like to thank the exhibitors supporting the conference: Sydney Charles; RD Aviation; LX Avionics; Pooleys; IMI Gliding; Southern Sailplanes; Zulu Glasstek; Anglia Sailplanes; Hill Aviation; Cloud Dancers; Hayward Aviation; Forbes Insurance; Aeroclub Barcelona; HpH Sailplanes; Cobra Trailers; Nav Boys; Centre National de Vol à Voile (CNVV); The Gliding Heritage Centre, Lasham; S&G; BGA simulator; BGA Shop; British Gliding Teams; Women Glide; Jonker Sailplanes; FLYPR - Santa Cillia; McLean Aviation; WomenGlide; Launchpoint; Alisport

§ BGA airspace committee then introduced his experiences working with several Airspace Change Proposals (ACP), and highlighted a lack of operational knowledge and limited use of available data by airports and their consultants, particularly with respect to activity outside any proposed controlled airspace and the subsequent export of risk. He went on to encourage further local engagement with air traffic units to raise awareness and made a plea to the audience to make maximum use of the BGA Ladder, which is an excellent source of data used during ACP responses.

After a short description of developments around electronic conspicuity and the BGA's long-established guidance to equip with technology most appropriate to the need, Pete moved on to note how the BGA is working to the agreed BGA strategy that provides a 10-20 year view of what the clubs see as a desirable and sustainable future, what UK gliding clubs see as their evolution, and the part BGA will play in supporting that evolution on a wide range of issues.

Describing incoming changes to pilot licensing and medical requirements and for inspectors, Pete noted ongoing BGA activity and planned support to minimise negative impacts. Pete described how the BGA is listening to the membership and acts accordingly, that there is a need to be smarter and more selective with communications, that S&G will move towards a digital option, that the website will be refreshed, and sought

assistance with aspects of BGA marketing. The presentation closed with Pete noting that some change is unavoidable, that the BGA helps to facilitate opportunity, minimises negative impacts and provides support, and that working together is undoubtedly the way forward for continued success.

Liz Sparrow was then introduced to provide a quick update on plans for the 2021 Womens World Gliding Championships, which will be hosted by The Gliding Centre at Husbands Bosworth.

The afternoon progressed with three fascinating presentations. The first was a detailed description of K-6e cockpit comfort and safety by Adrian Emke, who has flown some very long flights in the type in complete comfort. This was followed by an interesting insight into human factors in gliding by Ian Gallacher, a human factors specialist currently working for the MoD and a BGA club CFI in his spare time. The third presentation was a team effort by Jake Brattle and Finn Sleigh, who won Gold and Silver in the 2019 World Junior Gliding Championships. Thanking those who have helped them on the journey, the pair talked through their start in gliding, through to learning to soar, flying cross-country, and landing out (a lot!), culminating in some great coaching, practice and preparation that led to their fantastic success in 2019. This entertaining and highly motivating talk was a great ending to a superb conference day.

The formal dinner and disco that evening attended by 250 guests was part-sponsored by Forbes Insurance. Andy Perkins presented to the Vice-Presidents in attendance a fabulous 90th BGA anniversary cake, which included a perfect copy of the 90th anniversary BGA logo and two glider images each from either end of the period, and presented each with personal copies of the first BGA journal from 1930. The BGA Challenge trophy was presented to Shalbourne GC by Terry Moyes of Forbes Insurance; the Hayward Instructor of the Year trophy was presented to Chula Rupasinha by Nigel Foster of Hayward Aviation; Shaun Lapworth presented a new BGA trophy generously supplied by his company, Navboys; and a further new BGA trophy was generously supplied by Andrew Neofytou of Flight Deck Wingman. Rachel Gardner-Poole of the CAA GA Unit kindly presented the BGA competition awards to the winners, all of whom continue to inspire others to fly a bit further, higher and faster! The fun continued into the early hours of Sunday morning.



Celebrating 90 years of the BGA with a splendid cake by Caroline Payne of Rolopoly Cakes

The BGA Team and General Information



Executive Committee

Chairman

Andy Perkins
chairman@gliding.co.uk

Vice Chairman

George Metcalfe

Executive Members

Nick Garland, Peter Hibbard, Matt Page, Peter Bennett, Rebecca Bryan, Bill Brittain and Richard Brickwood

Treasurer

Anthony Smith

Company Secretary

Anthony Smith

HQ

Tel: 0116 289 2956

office@gliding.co.uk

www.gliding.co.uk

Chief Executive

Pete Stratton pete@gliding.co.uk

Office Manager

Debbie Carr debbie@gliding.co.uk

Accounts

Peter Bishop
accounts@gliding.co.uk

Administration

Lizzie Pike lizzie@gliding.co.uk
Luke Walker luke@gliding.co.uk

FAI Badges Officer

Basil Fairston basil@gliding.co.uk

Chief Technical Officer

Gordon MacDonald
cto@gliding.co.uk

Airworthiness Quality Manager

Keith Morgan

Magazine Editor

Susan Newby
editor@sailplaneandgliding.co.uk

Child Protection Lead

Karon Matton karon@gliding.co.uk

Performance & Development

Competitions & Awards

Alan Langlands

British Gliding Team Manager

Graham Garnett

Development

Dave Latimer

Development Officer

Alison Randle
alison@gliding.co.uk

Aim Higher

Kevin Atkinson

Schools and Colleges Lead

Yvonne Elliott - via the BGA office

Operations

Safety

Tim Freegarde

Airspace

Pete Stratton

Instructing

Colin Sword

Training Standards Manager

Mike Fox
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>

Other Information

Courses and Seminars

BGA courses and seminars information is at [https://members.gliding.co.uk/courses/](https://members.gliding.co.uk/courses)

Fees

BGA fees are detailed at [https://members.gliding.co.uk/fees-and-charges/](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 email: office@gliding.co.uk



▲ Delegates get their hands on Schleicher's new AS 33. Managing Director Uli Kremer gave a fascinating presentation on the evolution of glider design and noted that, at 93, Schleicher is three years older than the BGA

◀ HpH CEO Jaroslav Potmesil chats to Cambridge's Richard Brickwood. The Twin Shark was at the exhibition



- An ever-increasing number of juniors enjoying themselves at the conference

(Facing page from centre top):

- ◀ WomenGlide UK's Liz Sparrow "They're not all for me!" Cheers, Liz!
- ◀ Taking a close look at Schempp-Hirth's Arcus. General Manager Ralf Holighaus attended the conference

- ◀ The Silent Electro 2 was also at the exhibition. Here Alisport's Allan Arthur chats with Steve Jones



Above: the exhibition was packed with the latest gliders and gadgets, providing a hands-on experience for delegates

2020 BGA SPORTING CONFERENCE AND AWARDS PHOTOGRAPHY BY PAUL MORRISON



- ◀ Rachel Gardner-Poole of the CAA GA Unit presents the Rex Pilcher Trophy, for earliest Diamond distance of the year, to Cairngorm's Adrian Loening

- The Department for Transport's Aida Mugabo, who leads the Government's Reach for the Sky initiative, was on hand to chat throughout an informative day



EXPLORING THE POWDER KEG

THESE stories are a great way to celebrate volunteers or to inspire more gliding activity, including the ground-based activities. I know lots of clubs are using their simulators more so now is a good time to gather this winter's success stories, ready to share next autumn to make sure members don't miss out on the sim opportunities next winter.

You can set your stories loose via:

- Social media
- Website
- Local press
- Club newsletters.

Talking of volunteers, National Volunteers' Week is coming up (1-7 June), which should provide a great way to try a few of these stories out. Have a few stories stored and you'll be well placed to respond to all sorts of relevant awareness days and weeks.



Cambridge GC's simulator plays an important role in training (Richard Maskall)

■ For more information or to discuss story writing and relevant club development, please contact:
Alison Randle
BGA Development Officer
alison@gliding.co.uk

STORIES HIGHLIGHT GLIDING BENEFITS

HOW do we adequately explain what gliding 'does' for people? Whether it is dealing with unhelpful planning proposals, networking with key local businesses or attempting to secure grant funding, in club development often so much hangs on a club's ability to convey the benefits that gliding brings to the club's community.

To further compound matters these aren't the easily measurable, unarguable statistics, such as the numbers of people who flew last year, these are the subjective and variable, soft outcomes; the infinite and indefinable myriad ways that gliding makes a difference to individual lives. The answer is storytelling. As Maya Angelou said: "How you make people feel is what they remember." I have seen this concept glibly dismissed on social media, but storytelling is not about creating fiction and telling tall tales. Good story telling is authentic and it communicates in the way that humans are designed to hear best.

Many people join a gliding club at a lonely crossroads time of life – a new job in a new town; in response to personal loss, bereavement, retirement, redundancy, divorce. Gliding brings fresh challenges, experiences, new friends and a sense of belonging. Look at your gliding story, and those of your friends – what has gliding done for you? How many gliding stories do you have? What did that low save on that challenging cross-country that time teach you about your mental resilience? Now scale that up to club level... a veritable powder keg of real stories about how gliding changes lives, begging to be told.

Sadly, in gliding we're collectively too good at keeping these things secret, so how does one 'tell a good story'? There are some key components – the main one of which is finding something which has a clear journey of change: a start; how things changed; how things are now. Start your story with really building an understanding how the situation used to

be. Paint a picture of how. What was the big issue, what is that hook that humans will be curious about (humans love a good drama)? Now, what changed? How did that change come about?

If this were one of those emotive, charity adverts, this is where the music will change key, the images will suddenly gain a warm, sunshiny glow and all the donkeys will be restored to full fluffy cuteness. Who is the person who was helped and how cute and fluffy are they now? They may have conquered their unemployment using the skills learned and confidence gained whilst managing the launchpoint. Maybe they 'just' went solo. This is a huge achievement in the eyes of people who watch birds soaring seaside cliffs and can only wonder what that feels like.

Create something that your audience can identify with – after all, all our club members are also ordinary members of a local community. These steps build emotions in the person reading, or watching if you have someone who can create mini movies.

Nobody likes an unsubstantiated pile of emotional guff so now is the time to swiftly back it all up with hard evidence. Root the story in facts and figures, academic evidence and the club's own findings and experience then relate it back to the reason you need to tell the story in the first place, ie, the person reading the story and the case you are building for your club. It has to be relevant. There are plenty of sources of evidence for gliding: local Councils, Sports Councils and the BGA for a start.

Talking at people is not particularly polite, so open the dialogue. Your story should include an invitation for immediate action whether your audience is external or internal. You can have follow-up stories too – people love to know 'what happened next...'.

Finally, top the story with a picture and a hooky headline. In our sport, gliding is so much more than just the flying and more people, including club members, need to hear about that. What story will you share with your club?

Dr Frank Voeten highlights changes to medical certification

ARE YOU FIT TO FLY?

FROM 8 April 2021, pilots of EASA sailplanes in the UK must evidence fitness to fly by holding a LAPL medical certificate or Class 2 medical certificate. This article aims to advise pilots, who intend to obtain a LAPL medical, which is the least restrictive medical certification that enables you to fly EASA gliders in the UK and in the rest of Europe. In most EASA countries you have to attend an Aeromedical Examiner (AME) to obtain a LAPL medical, but in the UK (and Norway) it is possible to get this from your own GP (or a GP in your GP practice providing they have access to your NHS medical record). You can get a LAPL Medical from your GP if **a**) your GP is willing to issue one and can do the assessment in their busy work schedule, and **b**) you don't have any of the conditions or procedures, either currently or in the past, listed in the panel below right.

When you want to approach your GP to get a LAPL, please bear in mind that these assessments are not part of the core workload for GPs, indeed many may never have encountered a request for one before. This would not be part of their NHS work and, as private work, will need to be paid for. Some GPs charge only a nominal amount, but it is not unusual to have to pay an amount similar to that of an HGV licence. GPs commonly charge less than AMEs for these assessments.

When you approach your GP (usually best via their secretaries) explain what you want and that the assessment is similar to that for a driving medical, also that the responsibility that meeting the standard entails fitness to fly lies with the CAA, not the GP. Print out the guidance material and give this to the GP, or their secretary, ahead of the assessment appointment so they can prepare themselves.

There are no additional costs for the GP to the CAA, and the administration of the process is an easy tick-box exercise on the CAA website.

If you are not able to have a GP-issued LAPL certificate, either because of your medical history or your GP not being willing to provide you with a medical certificate, you will have to contact an AME. The list of UK CAA AMEs is available on the CAA's website. You may have to contact a few, as not all AMEs undertake LAPL assessments and there is not an abundance of AMEs.

The vast majority of glider pilots will have no difficulties in obtaining a LAPL Medical Certificate. Sometimes, especially if people have a long and/or complicated medical history, additional paperwork and or tests may be required. Please bear in mind that most AMEs are keen pilots themselves, understand our urge to want to fly, but they have to abide by the UK CAA's regulations. There is little point sharing displeasure about regulations and requirements with your AME; we did not make the rules but are expected to stick to them.

MOST AMEs ARE KEEN PILOTS THEMSELVES, UNDERSTAND OUR URGE TO WANT TO FLY, BUT THEY HAVE TO ABIDE BY THE UK CAA'S REGULATIONS

■ **Further information about obtaining a LAPL Medical Certificate, including downloads for leaflets for pilots and GPs, and a list of CAA AMEs who can do an assessment, can be found at: www.caa.co.uk/General-aviation/Pilot-licences/Applications/Medical/Apply-for-a-LAPL-medical-certificate/**

Conditions precluding a GP issued LAPL medical certificate – if you have or have had any of the following you need to have a medical assessment with an AME

- Decreased visual acuity in either eye below 6/9 despite any correction
- Visual field defect
- Need for hearing aid(s)
- Angina/coronary artery disease
- Cardiac arrhythmia, including AF
- Cardiac valve replacement
- Recurrent fainting
- Implanted cardiac device
- Heart failure
- Chronic lung disease
- Pneumothorax
- Organ transplant
- Cerebral disorder
- Epilepsy
- Sedative medication
- Antidepressant medication
- Psychotic disorder
- Alcohol/substance misuse
- Personality disorder
- Learning difficulties
- Malignant disease
- Diabetes requiring medication
- Endocrine disorder
- Sleep disorder
- Major surgery

Type of sailplane flown...	When do I need an EASA SPL and medical in the UK?	If I use BGA or NPPL privileges in the UK, what medical do I need?	If I use the privileges of a LAPL(S), what medical do I need?	If I use the privileges of an SPL before 8 Apr 20 what medical do I need?	If I use the privileges of an SPL* from 8 Apr 20 what medical do I need?
An EASA unpowered or sustainer sailplane	By 8 Apr 21	BGA, eg a self-declaration	LAPL or Class 2	Class 2	LAPL or Class 2
An EASA self-launching powered sailplane	By 8 Apr 21	CAA, eg a self-declaration	LAPL or Class 2	Class 2	LAPL or Class 2
An EASA TMG powered sailplane	By 8 Apr 21	CAA, eg a self-declaration	LAPL or Class 2	Class 2	LAPL or Class 2
A non-EASA sailplane	You don't	BGA, eg a self-declaration	N/A	N/A	N/A

*Under the new sailplane flight crew licensing rules, a LAPL(S) will be deemed to be an SPL from 8 Apr 20



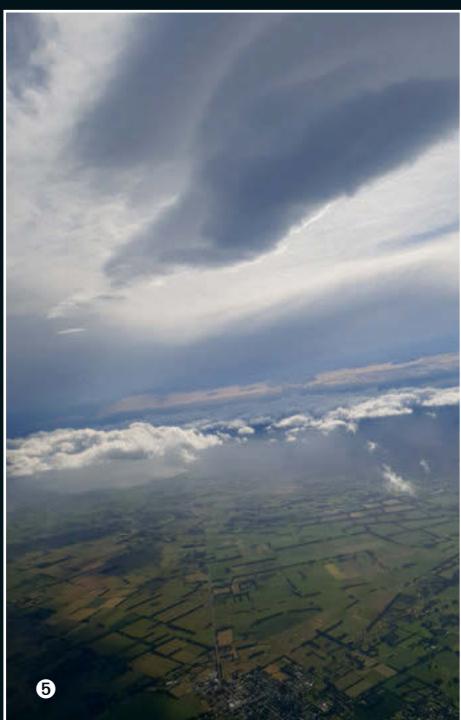
This page:

- 1 Rainbow gliders waiting for Booker's tug, flying between the showers (Bob Smith)
- 2 Seahawk's Rob Harris with trophies for the club's Height Climb of the Year and Pilot of the Year – pirate treasure?
- 3 The sun sets after a winter day's flying at Burn (Peter Weaver)
- 4 Mist rises from the valley on a crisp winter morning at North Wales

Facing page:

- 1 Steve Berry nearly gets lost in one of the concrete foundation piles during work at AGC Anglia
- 2 Wrekin's R66 on landing with Nigel Readman passing one of Cosford's disused Lamella hangars
- 3 The local mountain rescue teams ran an exercise at Camphill in mid-January, bringing in a rather large HM Coastguard rescue helicopter (David Upcott)
- 4 Some of the Devon & Somerset 2019 trophy winners (Robert Lee)
- 5 Eddie Smith of Essex & Suffolk GC took this photograph while volunteering in New Zealand
- 6 Best known for his work on *Star Wars* books, Hans Jenissen is a professional illustrator and has been a member of DSGC for a number of years. Recently he has progressed to Bronze. Chairman Nick Jones commissioned this painting of his three gliders: Eagle 2 AXJ, Eagle 3 BBB and Duo Discus XLT DD3, showing them thermalling over North Hill. This is the third glider painting that Hans has completed following Matt Wright's ASW 24 in the Alps and Bruno Vassel flying over the Grand Canyon. The latest painting was completed with a time lapse camera running and is available on YouTube (www.hansjenissen.co.uk)

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



CLUB NEWS

AGC ANGLIA (WATTISHAM) WWW.ANGLIAGLIDINGCLUB.ORG.UK 520739N 0005722E

DURING 2019 we had two first solos: Lucy Clarke (16) and Paul Field (somewhat older) and four pilots (Natasha Parker, Trevor Stiff, Dave Johnson and Steve Berry) achieved their Bronze Badges. We also had type conversions and made three expeditions: Sisteron, Aboyne and Lyveden. We achieved great results at competitions: Hahnweide (Gwyn Thomas and Lee Davidson); Bicester (Gwyn Thomas and Jerry Beringer); Shennington (Lee Davidson and Peter Hibbard); Inter-Services (Gwyn Thomas, Lee Davidson, Jerry Beringer and Jonty Sharp); and the 20m Nationals (Lee Davidson). A cadet scheme has been established and we received an award for services to Junior Gliding. Anglia supported the BGA at the Shuttleworth Collection and other airshows, as well as at the Royal International Air Tattoo. We loaned Norfolk GC our Rotax Falke to enable them to run the VGC International Vintage Rally, and club members helped build the footings for our new clubhouse, which should arrive during February.

Simon Ginns

AGC WYVERN (UPAVON) WWW.ARMYGLIDINGCLUBWYVERN.COM 511712N 0014700W

IS IT just Wiltshire, or have the past couple of months been very poor for even a winter glider season? Very frustrating. Nevertheless, glider winter maintenance programme is well in hand. The new ground facilities building, encompassing clubhouse, workshop and winch/vehicle garage is nearing completion. This has been a significant investment in the club facilities by Army Sports and puts the club in a better place to deliver the Adventure Training Group (Army)'s sponsored courses through the summer, particularly with the demise of the Joint Service Gliding Centre at Syerston. AGC(W) has a full programme of courses starting end of March – all we need is the weather.

Paul Jessop

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

A DIFFICULT start to the year but, with the availability of a hard runway, flying has continued! Oxford were waterlogged over a couple of weekends and we were able to welcome their members to fly here. Junior

pilots with Banbury have received a significant financial boost in that the Upward Bound Trust has teamed with the club and sponsor them £8 per launch, so a 2,000ft, 20-minute aerotow flight will cost £7; that must be amongst the best offers in the country! We plan to run soaring weeks from the 25-29 May and 10-14 August. We also intend to get involved in Inter-Club League again.

Peter Fincham

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

BANNERDOWN is celebrating its 60th birthday this year. There's been lots of maintenance done and, while the actual birthday was 25 January, we're having a party at Easter when we have a soaring week, with another soaring week at the end of May. I have been looking through the early newsletters. Membership was £2.10/0 a year or 5/ a day (back when we operated with pounds, shillings and pence) and the club fleet comprised an Oly 2B, Eon Baby, T-31, Tutor, Cadet and a Sedburgh two-seater. Perhaps most interesting – that first newsletter reported Bannerdown as seventh on the list of RAFGSA clubs for October 1960 for overall flying effort.

Alison Arnold

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

AT THE Park, Christmas was celebrated with yet another excellent meal laid on by John and Julie Hull. Congratulations are due to Graham Hoyle, who has now qualified as a Basic Instructor, bringing our total of BIs to four and Steve Lambourne has initiated our annual series of Bronze lectures in collaboration with Mendip. The deliberations of our committee concerning the future development at The Park, now with its renewed 25-year lease, continue with a firm decision taken to replace our excellent Pawnee tug with a EuroFOX. Flying has continued throughout the winter, but with opportunities limited by wet weather.

Chris Basham

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

AT THE end of January there had been no gliding at Bidford for 100 days due to the field being waterlogged. Husbands Bosworth

came to our rescue and a number of our members, including two of our juniors, had a good day of flying on 6 January. Our annual awards dinner was held at Kings Court Hotel on 22 February. Our Wings & Wheels event will be held on 25 May. Our competition will be held from 4-12 July and is fully subscribed.

Mike Pope

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

FUTURE development plans are being formulated by the committee, informed by members' responses to a questionnaire. These plans will be presented at our AGM in April. Our CFI and treasurer are both standing down after several years; thanks go to both. After carefully running in her refurbished engine, our Pawnee G-AZPA has returned to towing duties; thanks to our dedicated tugmaster and his willing assistants. Seven-day-a-week operations restarted at the beginning of March and continue until the end of October. Visiting pilots are always welcome. Gliding courses are available every month throughout the summer. Places fill up quickly, so don't delay in booking.

Mike Codd

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

THE winter has been very wet, but we fly whenever the sun shines and Stuart Whitehouse gained his Standard Aerobatics badge on one of Graham Saw's aerobatic Saturdays. Our Duo Discus has been stationed at Lleweni Parc over the winter and several members have taken advantage of excellent conditions to go to Wales for some wave flying. Denbigh GC is also using it when Booker members are not there, so it is generating income for us. Plans are in hand for the year's expeditions, including the ever-popular trip to Klippeneck, southern Germany, in June.

Jane Moore

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

WINTER at Milfield has been "gliding versus the weather". We've had some great days in the local wave: Peter Johnson's climb of over 17,000ft to 19,446ft on the 5 January is our best for 2020 so far. Colin Sword ran a Bronze course

(Left to right): some of the interpid **Anglia** clubhouse foundation hole diggers; Martin Soulsby, **Milfield** tugmaster, delivering the club's Cub to Perth for its annual maintenance; a busy day in the **Cambridge** workshop



with five exam passes so far and more on the way, hopefully. Thanks Colin, and well done to successful candidates. We are delighted that, after his spectacular 500km flight in May 2019, Adrian Loening has been awarded the Rex Pilcher Trophy by the BGA for the earliest Diamond Distance Flight of the year. 2020 will be an exciting year at Milfield with Competition Enterprise here for the first time.

David McCormick

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

LITTLE significant flying to report on. The AGM came and went, with all committee posts filled after only a little arm twisting. Many thanks to those who give up so much time to support the club. Numerous small projects around the patch were completed. The chairman progressed the bureaucracy associated with the arrangements for the new Bristol University glider, which should be with us in time for the soaring season. The Old Flying Club Cafe was closed for a period during the depths of winter, but will have re-opened by the time you read this. Ben Payne completed his BI preparation and will complete a course shortly.

Greg O'Hagan

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

WE are actively planning for 2020 season with cross-country lectures booked. Courses in aerobatics, cross-country and Bronze badge flying have been decided on and two expeditions confirmed. Along with the planned learner weeks, a busy time. With our seven-day operation, the daily rota team has done their best to maximise flying, but the planned three-mile wide umbrella could not be found on Amazon. We have welcomed visitors from other clubs whose fields have been waterlogged, all expressing the wish for a nice concrete runway. We have moved our 25-launch point back to improve the length for aerotowing. We have a Chipmunk as a backup tug, handy for busy summer months.

Danny Lamb

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

THE poor weather hasn't deterred us in capitalising on opportunities to fly. The

soaring season started early with several Burn pilots finding wave on 2 January. Alastair Mackenzie stayed up for 2hrs 41mins with a flight that included two Silver height gains. Our evening lectures after flying on Thursdays during winter include parachutes, instruments, what it takes to run a gliding club, winching, local airspace, human performance and radio for glider pilots. Leeds University will give a talk on Helikites. Alastair Mair has completed his Bronze and the cross-country, and Neil Bale passed the Bronze exam. We will have our full complement of two aircraft for aerotows this season.

Neil Bale

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

WE celebrated the end of the soaring season with a Christmas Party and annual prize giving. Father Christmas was scheduled to fly in, but suffered a navigation malfunction and had to be retrieved from nearby in the buggy. He handed out presents before retiring to the bar. Our airfield received more than its fair share of rain but our new "Mintel" simulator has been well used and allowed many to keep "flying". The workshop and the workshop team have been busy taking gliders through their annual inspections. Dealing with four gliders at the same time was a squeeze, but members coped admirably by the Gransden shuffle.

Chris Davis

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

AT our AGM in January we elected David Roberts (chairman), Jane Randle (deputy), Andrew Flewelling (treasurer) and Roger Banks (marketing). We also thanked retiring committee members. Brian Birlison and Matt Page updated us on plans for the Junior Nationals and Cotswold Regionals, both happening here in August. We are delighted to welcome South Wales Club members and their EuroFOX tug this winter as their airfield has been waterlogged. We were saddened to learn of the passing of retired member, George Ford, after a long illness. We are proud to report that David Roberts was awarded an OBE in the New Year's Honours List for services to aviation.

Frank Birlison

CRANWELL (RAF CRANWELL)

WWW.CRANWELLGC.CO.UK

530231N 0002936W

NOT too much to report on this occasion. The year at Cranwell is progressing well despite the wet weather, with a number of members revalidating their instructor ratings; welcome back Christine Davis and Sean Link as BIs and John Ravenscroft as an assistant rating. Angus Watson has acquired a nice sparkly ASW 27, no doubt he'll make good use of it during the coming year. We welcome back Ross Carlton after his layoff. Tim Davies is gradually replacing our old parachutes as they reach "use by date" with new ones and a thank you to Ray Walker has taken on the job of getting them serviced and repacked.

Zeb Zamo

DARLTON (DARLTON)

WWW.DARLTONGLIDINGCLUB.CO.UK

531444N 0005132W

THE field is still very wet and we still have been unable to fly. Hopefully the weather will improve soon and we can get back in the air. Members have been working hard around the club doing maintenance on equipment and aircraft. A particular thank you must go to the members removing the gelcoat from the fuselage of the Janus supervised by a technical officer Tim Sharpe. Hopefully the Janus will be completely refurbished in time for the flying season. Thanks to our CFI Al Docherty for his efforts in motivating people during this none flying.

Barry Patterson

DENBIGH (LLEWENI PARC)

WWW.DENBIGHGLIDING.CO.UK

531239N 0032312W

WE'RE doing our usual cross-country coaching this thermal season, so book in for that if you're looking at improving your cross-country skills. Don't forget to book in for our autumn wave season for the whole of October. This is very popular and you may need to book early to avoid disappointment.

Chris Gill

DERBY & LANCS (CAMPHILL)

WWW.DLGC.ORG.UK

531818N 0014353W

WE managed to get 15 flying days in the past two months. The best was the penultimate day of December, with wave up to about 6,000ft. Our simulator is now officially part of our training programme. Our summer



(Left to right): Dalton's Janus refurbishing team hard at work; over East Sussex in mid-January, an amazing stratocumulus cloud formation that was a result of cold northerly wind undercutting warmer air to the south forcing it up to condense; K-21 at sunset at Kent (Julie Garside)



ψ season, seven-day-a-week operation starts on 30 March. We don't know if the access through Abney will be back by then, but the authorities are working on it. We thank Maurice (Mo) Bent, who's just retired from committee. His Free Flight logging system is successfully used at Camphill and other clubs. Air Cadet Cpl Ellis Brennan is one of two Greater Manchester cadets awarded an RAF Air Cadet Pilot Scholarship.

Dave Salmon

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

THANKS to chairman Nick Jones for spotting good weather days. There have been some sunny, winter days sometimes with aerotow only and, when the airfield could cope, with the winch. The simulator has been well used on inclement days. Congratulations to all the DSGC trophy winners after the AGM, with most of the usual pundits sharing the cross-country honours and Pete Bennett making his first appearance. Team Hender were voted for best contribution by a member poll, and the best progress award was shared between Emma Kendall, Mark Worsfold and Dan Hender. The member vote for best instructor went to Pete Harmer.

Jill Harmer

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

THE Christmas/New Year's Eve social event was a great success. Ian Simmonds has completed his Bronze and Charlie Waygood is working on his BI qualification. The club's EuroFOX is still for sale. If you're interested, contact our chairman, Nick Barnes. A group is heading to the Mynd in March to attend a maintenance course for glider owners and an expedition to Denbigh planned in April to experience ridge and wave soaring. Nick Barnes has completed his motor glider instructor qualification. Andy Grant has been to Soaring Safaris near Bloemfontein in South Africa. He has been sending back "wish you were here" reports of superb weathers.

Allan Powell

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

WE saw 2019 out with our airfield waterlogged and welcomed 2020 in with

more rains. Reluctantly, we suspended flying until March when we hoped the field would allow us to get back in the air. During this time, we held some training for early cross-country pilots on our simulator and backed this up with lectures and exam preparation. A small group of members has been busy rebuilding a K-8 with the hope of getting it ready for the 2020 season. In mid-January we saw an amazing stratocumulus cloud formation that was a result of cold northerly wind undercutting warmer air to the south forcing it up to condense.

Mike Jeater

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

WE are currently bearing out our Skelling Farm winter shutdown, but members are flying at quite a few different clubs to keep them current. Unfortunately, John Castle has stood down as CFI and will be greatly missed; he will still be coming to do some instructing and flying though. John's contribution to Edensoaring has been immense, we cannot thank him (and Fiona) enough! Rob Hanks is taking over as CFI and we look forward to welcoming him when we start up again on 2 May. Visitors are always welcome; the Pennine ridge awaits!

Keith Natrass

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

WE'VE been enjoying the hospitality and facilities over the winter months at Anglia Gliding Club whilst our own grass runway has been too damp to use and we thank them for making us so welcome. Whilst it's a shame that we cannot use our own runway it has been good for our members, regardless of their experience, to fly from a very different site for a while. Meanwhile, back at home our own fleet is being prepared for the season ahead and our new simulator is very nearly complete. Let's hope that 2020 brings many good soaring days for all UK clubs.

Cathy Dellar

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

A QUIET few months with winter operations slowing possible launch rates. In amongst the doom and gloom of short, dark winter days

Steve, Norbert and Eddie have been able to complete their Basic Instructor ratings; congratulations to these three. Gliders are receiving their ARCs in preparation for the 2020 season, which is quickly appearing around the corner! It is great to see so many club members on various expeditions to Denbigh, Midland Gliding Club and the Junior Gliding Winter Series. Congratulations to Jake Gazzard, who managed his Gold height over Denbigh.

Edward Smith

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

DESPITE the challenges of the weather, club members have been able to take advantage of the best that our local area has to offer, with opportunities for both wave and hill soaring. Our programme of winter evening talks continues, with recent topics being hill soaring techniques, procedures for correct logging and submission of claim forms and data for badge flying. Future talks are planned on cross-country flying, safety in the air and on the ground, field landings and a selection of other relevant topics requested by our members.

Nigel Snee

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

OUR K-21, which had not long returned from repairs in Yorkshire, had to return for unrelated works in December. Fortunately, these repairs were turned around in less than three weeks and the Twin Astir syndicate again came to the rescue by providing a two-seater for training. We have introduced an additional bookable 'slot' for the K-21 at 9.30am, to supplement the other booking times of 11am, 1pm and 3pm. The earliest booking will be for check flights, to get them out of the way before training flights start. As a result of last year's enjoyable expedition to Pocklington, we are planning a repeat trip in late June/early July.

John Thomson

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

AT the time of writing, our Pawnee tug is nearly ready for reassembly after an extensive refit and overhaul. Our K-21 fleet

(Left to right): winter training at **Lasham** (Jordan Bridge); **Norfolk's** Mrs Christmas arrives in style at the Norwich Aviation Academy; Olivier Blesbois with **Oxford** instructor Barry Taylor after his re-solo (Liisi Laks)



and Junior fleet are ready for the new season so all we need is stunning weather. Thanks to all who work to keep the aircraft and our machinery in top condition. Our flying levels increased and our membership also grew in 2019. Our courses start in April with our professional instructors. This year we're running some development courses for club members following the success of these courses last year and, along with planned trips to Shenington, Portmoak and Aboyne, we are looking forward to another exciting year.

Mike Bowyer

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

THE weather has restricted us to just three days flying; 18 January was the exception with wave to over 12,000ft. The only two gliders that managed to contact it were self-launch. Andy Tebay and John Burdett reached to 12,000ft and pushed into wind before returning to Walney. Peter Craven stayed local, climbing to 14,000ft. The rest of the weekends were spent doing the ARC on our EuroFOX, completing the EuroFOX and club gliders' storage unit, also installing the FLARM unit. Thanks to John Burdett, Peter Lewis, Peter Seddon and G Bailey-Woods and the weekend members. We fly every weekend, weather permitting. Why not pay us a visit and experience our unique site?

Peter Craven

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

A MILD, but damp, start to the year has limited the amount of flying we have done. However, we are looking forward to the season as we launch our package of summer intensive courses, which offer training to pre-solo, post-solo and early-cross-country pilots alike. Our congratulations to the British Gliding Team at the Women's World Championships at Lake Keepit, Australia, who achieved a Silver Medal in the Team Cup. Lasham pilot Ayala Truelove achieved a Bronze medal in the Standard Class, as well as strong results from Liz Sparrow and Claudia Hill. Finally, we also look forwards to hosting the 18m Nationals and 20m Multi-Seat Class Nationals between 8-16 August.

Jordan Bridge

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

WE ARE fortunate that our airfield is on chalk grassland and through the winter we enjoyed lots of flying on the local ridge. We have had a successful series of 'Winter Wednesday' lectures and Martin Hayden led our Bronze series. In March we had another successful pilot development course and, by the time you read this, we will be enjoying our expedition to Shobdon. Later in April we host the Dan Smith Aerobatics trophy and our Easter Competition. In May we have a soaring course, followed by our own 'Enterprise' week in June. As always, guest pilots are very welcome at the Dunstable Regionals in August.

Andrew Sampson

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

CONGRATULATIONS to chairman Rod Coombs on his Silver. Our committee are looking at plans to upgrade our fleet with another glass solo machine. The saga of winter days of low cloud and rain continues, but we have had occasional brilliant ridge and weak wave. Our CFI Simon Withey has arranged another course of Bronze lectures with our neighbours at the Park. Last year's produced a clutch of new Bronze pilots, who are now chasing Cross Country Endorsements. Simon is also planning expeditions to Talgarth and other sites. The hangar door team continues to refurbish the running guides, and Lez Saker continues to beaver away in the workshop on aircraft maintenance.

Barry Hogarth

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

AFTER some concerns about the weather, our Christmas dinner and awards ceremony took place as planned. The clubhouse was full and the evening was a great success, except for those members caught out by a short, but very sharp, snowstorm on the way up! Our most recent winter lecture was by Afandi Darlington from the AAIB. It was a fascinating evening as we gained an insight into how they approach an investigation. The Junior Gliding Winter Series, round two, took place at The Mynd with plenty of ridge flying. We

have a very busy season coming up with the VGC annual rally and the Wenlock Olympian Games Gliding Competition.

Steven Gunn-Russell

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

THE Christmas party and prize presentation was a great success. Winners included Clive Wilby, Peter Stafford Allen, Bob Grieve, John Gilbert, James Francis Dave Munro, James Loveland, Bruce Daniels, Peter Flack, Pete Ryland, Tom Hesp and Gerry Fletcher. Our refurbished winch is online after a slight hiccup and proving to be very powerful with launches to 2,000ft not uncommon. After last summer's vintage rally, the number of vintage gliders on site continues to increase with an Oly 2B appearing. We'll soon have enough for a rally of our own. We recently had a stand at the Norwich Aviation Academy exhibition, with an Astrir attracting attention and prospective members.

Adrian and Barbara Prime

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

WE'VE had some good soaring this year, taking advantage of conditions. With very cold, crisps days and beautiful views to Mount Snowdon. We have new covers from Air Covers for our PW-6. and were so pleased with them, we having them laser measure our Astrir and make for it. As we have two qualified aircraft engineers and one in training, they're doing all glider annuals in-house. They do a top-notch job. They're even doing repairs and annuals on gliders from other clubs. We can cloud fly at very low altitudes and see the mist rising from the valley on a crisp winter's morning.

Ian Masson

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

CAN you fit floats to a K-21? Our members have been keen to see how our refurbished winch and Dyneema copes with winter. Congratulations to Olivier Blesbois for resoloing; the first of many solos this year, we hope. As thoughts turn to the season ahead, preparations continue for expeditions to the Mynd and the Alps and we continue to improve the club's facilities. We have acquired



(Left to right): **Rattlesden** members having fun turning over their K-13 to repair a puncture; **Seahawk**'s Tony Hogg receives an award for first solo of 2019; also at **Seahawk**, Ed Hillman is awarded a trophy for 'progress of the year', after 10 busy months



↙ a new(er) bus as a replacement launch point much to the surprise of the passengers. Thanks to the efforts of our members, we hope to have this in service in time for the wonderful soaring season that 2020 will deliver.

Norman G Nome

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

IT'S been quiet recently, but late January saw 21 aerotows. Our neighbours from Lyveden have based their K-13 here and have been welcome visitors. Having renovated the clubhouse, Pete Hardingham and Phil Jameson are now busy updating the toilets and shower facilities; we thank them. Our Husky tug aircraft is enjoying deep maintenance and will be back, hopefully, in early spring. In January we unfortunately lost a popular member of PSGC when she died of a brain tumour; Sara was a jovial and popular lady and the partner of Dave Gilham. Please have a look at her obituary (see p70), a lovely lady who, despite this horrible condition, never moaned and always had a smile.

Roland Pitch

RATTLESDEN (RATTLESDEN)
WWW.RATTLESDENGLIDING.COM
521001N 0005216E

WE'VE been trialling a new electronic flight logging system. This has been going very well and proven straightforward. Our thanks to Peter Gibbons for setting this up. We have a series of talks throughout winter. The first was Tony Haig-Thomas, who was an RAF pilot flying Hunters, Meteors and many more. Tony was also CEO of the Shuttleworth Trust and flew a Grumman Avenger on the show circuit. Next one is Darren Hatcher giving us an overview of RASP. Preparations are under way for our expedition to Portmoak in April; at the last count there were over 20. Here's hoping we'll be recording soaring flights on our new system soon.

Gary Western

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

CONGRATULATIONS to Jamie Scott and Tom Thomson, who have gone solo. Despite the winter deluge our usual pundits have flown a handful of cross-country flights in difficult conditions. The next in the Junior's

Series is being held at Long Mynd and a large group of our cadets are attending, hopeful of good flying at this challenging site. The SGU board has ordered a new Perkoz glider, scheduled for delivery mid- to late-2021. Bill Fulton has undertaken the role of project manager for the projected third hangar. Shortly we should complete the LAA registration process for our new EuroFOX tug aircraft.

Chris Robinson

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

DESPITE the weather, we've managed to stay current, complete most of the annual check flights. Ed Hillman passed his Bronze test flights to qualify for his GPL, all in only 10 months, hence being awarded the Progress of the Year prize at our Christmas Party. Other winners were Lawson Tickell, Flight of the Year, for his Silver 50km out-and-return; Tony Hogg, First Solo of the Year; Rob Harris, Best Height Gain and Pilot of the Year; and, finally, the CFI's prize went to our secretary, Lawson Tickell, for the work he has done keeping the club admin on a straight glide. Roll on the soaring season!

Chris Bryning

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

WHILE winter threw wet and windy conditions, we've been defying gravity as often as possible. Our annual January work weekend was successful. Many thanks to all who took part. SUGC continue to keep our instructors busy with the latest crop of students. Congratulations to Aliaksei for going solo. We expect to see many more SUGC badge claims this year with the purchase of their first glass-fibre glider, the newly christened "SU". Thanks to Pete and Andy for their help in buying the DG-101g and to Pete for obtaining (and sign-writing) the new comp number. As always, many thanks to everyone whose hard work helps keep our club running.

Claire Willson

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

SO FAR 2020 has been quiet, but congratulations go to Bill Ives (re-soloed). We

thank George Derby, who recently stepped down as CFI, and Bruno Brown, who has taken over. Infrastructure work has been continuing, with Sean finishing lots of jobs. We owe a big thank you to the members who've been working on the gliders and the new shower block. Others have been developing a new club website. Hopefully there'll be a better ratio of flying to fettling soon! Work continues planning Shenington Regionals 2020. We're also hosting the Juniors in April. You can keep up to date with our weather/activities via the website/webcam and blogs.

Tess Whiting

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

A MILD start to the winter ridge season enabled Jim Fleming and Graham Smith to qualify as Bls. Geoff Burtenshaw became our secretary. Then the rains came! The field closed with unprecedented flooding, and the surrounding area to the west looked like Lakeland. In these dark days we look for little shafts of light from heaven... in the first week of the New Year, a dry stretch of airfield was detected and a group of bold pilots were dropped on to the home ridge. There were out-and-returns and an amazing cross-country just short of 200km. The spirit of adventure is alive and well at Southdown.

Peter J Holloway

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

IN ADDITION to a still-waterlogged airfield, frequent murky weather and strong winds have limited the amount of flying we've been able to enjoy at Aston Down as guests of our good friends, the Cotswold Gliding Club. Looking forward, we're currently planning an expedition to join the MGC at Llanbedr for a week in March. Meanwhile a series of Saturday evening lectures at our Usk clubhouse is helping us to prepare for the coming season, with Derek Bennett talking on thermal soaring, our CFI Maureen Weaver on wave soaring, Chris Tooze on first cross-country and Geoff Williams on first competition. The highlight was probably guest speaker Dr Phil Charlesworth's fascinating talk in January on electric powered flight.

Stuart Edinborough

(Left to right): sea of fog over **Stratford-on-Avon** as seen from the club's K-13 (Andy Balkwill); **Wrekin's** Nick Lewinton and Ian Gallacher admire their ASW 20, fresh from its 3,000-hour inspection and refurbishment; **Wrekin's** Astir and ASW 20 share the launch point at the Long Mynd



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

IT HAS been a quiet time of year, especially with the amount of water we have lying around and smacking us in the face. We had a good year with plenty achieved and some mini trips over to Sleep to keep those that can go in practice. We have some winter lectures coming up so if anyone is near please join us. Finally, the results of the cross-country ladders are as follows: Open Ladder – John McLaughlin with 15,431 points, including the longest flight of 504km; Club Ladder – Graham Stanford with 10,602 points; Novice Ladder – Nigel Frost with 1,650 points. Here's to the weather becoming a bit more perky.

Graham Stanford

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

THE MISERABLE weather has continued, but we have managed to fly reasonably regularly using the areas of the field that remain firm. At least the poor weather is giving us time to turn our thoughts to the summer and planning for our Wooden Wings Week (19-25 July), as well as course weeks, task week and various expeditions. Thanks to Barry Kerby for his work on the fleet to prepare it for the new season – including the work so the gliders can carry moving maps. Now all we need to do is hold some ground school sessions to teach everyone how to use them. Wooden Wings Week is open to all, for more information email chairman@stratfordgliding.co.uk

Andy Balkwill

SURREY HILLS (KENLEY)
WWW.SURREYHILLSGLIDING.CO.UK
511820N 0000537W

WE ARE looking forward to some better weather as flying has been sparse over the winter, but jobs around the airfield have kept us busy. However, we have been luckier than some and have managed to keep some of our colleagues from other clubs current while their airfields are too wet to fly. The new VGS 615 cadet clubhouse is nearing completion and they are planning to recommend weekend cadet flying from April onwards. That will mean the historic airfield becomes a gliding site seven days a week again. We wish everyone a great 2020 of flying.

Chris Leggett

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

A WET December/January meant our flying was limited to just aerotow off the hard runway. We thank Bicester for hosting us for a winch refresher as our field remains wet. Our maintenance team is working through the fleet to complete ARCS, a big thank you to all. We've had a change within our tug structure: Tim Treadaway has stepped down as our tug master, but remains a big part of the team. Thank you, Tim, for everything you did. Simon Smith, one of our tug pilots, has taken on the responsibility of looking after the fleet. We wish him the best.

Sallyann Perkins

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

IN COMMON with many grass airfields, the winter has been a complete wash-out. Thankfully our gliding friends have helped to keep us current. Anglia GC have been great hosts at Wattisham, while one of our K-13s operated from Crowland airfield, courtesy of PSGC. Very much appreciated. Our training fleet is back to full strength, with the Acro back in service. Bring on the season.

Andy Burton

WOLDS (POCKLINGTON)
WWW.WOLDS-GLIDING.COM
535532N 0004740W

AN EXCELLENT team effort from those involved in the filming of David Jason's *Great British Inventions* (More4), and a special mention to David Holborn, who featured as Mr Jason's instructor. Lloyd Finlay has taken over from David Wheeler as club treasurer. We thank David for his long and devoted service to the club in this role and as company secretary. The winter series of Bronze lectures is progressing with good levels of attendance. Annual checks are taking place with preparations being made for the new season – we look forward to seeing more members progressing at all levels this year.

Jonathon Richardson

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

WITH the tug offline for some time we've been limited to winch launching only and whilst the wet ground has, on occasions,

limited the flying programme at Cosford the more adventurous have ventured afield to enjoy the Long Mynd. In the meantime our workshop has been kept fully occupied with scheduled annual inspections prior to the start of the new season. Our Easter expedition, planned in conjunction with Midland Gliding Club, is now finalised and we are all looking forward to making a welcome return to Llanbedr. Preparation for the move to Shawbury continues with a good clear-out of surplus kit and equipment, the sale of which has generated some welcome income.

Geoff Catling

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

THE winter has provided plenty of flying, the most notable flight being Dawn Hammond and Tom Pavis to 10,000ft. Our Bronze ground school is under way and we've been carrying out plenty of essential maintenance with our K-13 CWH looking resplendent after a full refurbishment. Finally, it is with sadness that we report the death of Chris Brayne on New Year's Eve, aged 91. Chris had a remarkable career as a journalist, was passionate about flying and became an instructor. There were always plenty of friends willing to take him up to enjoy a view of the countryside. Our sympathy goes to his family.

Andy Carden

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

MISERABLE December weather allowed only 12 flying days. Six were ridge/wave soarable, including a good wave day to end 2019. January started well with three days of ridge soaring. Nearly two-thirds of the days were flyable, of which half were soarable. Pilots had to cope with a very soggy airfield and muddy gliders! Our well attended winter lectures continue, thanks to senior instructor Steve Thompson. Our belated Christmas dinner at the clubhouse featured 2019 prize-giving. Rob Baily and Steve Thomson topped the leaderboard, scooping three trophies each. Good to see younger, less experienced, pilots Nora Van Genugten and Toby Tilson take their well-earned share of the silverware.

Ken Arkley

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



■ BWND is a warm, friendly club, keen to welcome fellow glider enthusiasts either as full-time members or visitors wanting to experience its spectacular location.

› CLUB FOCUS

BATH, WILTS & NORTH DORSET

AT A GLANCE

Membership:

Full: £362pa
Junior: £181pa
Cadet: £120pa

Launch type:

Winch: £9.63
Aerotow: £33.60 (to 2,000ft)
Motor-glider: £60ph

Club fleet:

3 x Puchacz, 2 x Astir,
K-6cr, Venture motor-glider,
Pawnee tug

Private gliders:

29

Instructors/Members:

16/40

Types of lift:

Thermal primarily, but a useful ridge to the north and occasional wave

Operates:

Weekends, Bank Holidays and Wednesdays. Six flying weeks April to Sept.

Contact:

Tel: 01985 844095
Email: membership@bwnd.co.uk
www.bwnd.co.uk

Long and Lat:

510742N 0021445W

Radio:

118.685 (Visiting power pilots: PPR only please)

T

HE PARK is a beautiful hilltop site on the West Wiltshire Downs and within the Cranbourne Chase Area of Natural Beauty.

Immediate neighbouring attractions are Longleat House and Stourhead. We have a well-drained grass strip oriented east/west, nearly a mile long and almost always serviceable. We are surrounded by some of the county's most beautiful downland landscape and, being clear of most airspace constraints, we are an excellent cross-country site. The club was formed in 1963 as the Bath Gliding Club, eventually becoming The Bath, Wilts & North Dorset after moving to The Park from Keevil in 1993.

Having recently renewed our long-term lease, we now have the security of tenure to be able to invest in the development of our club. We have a purpose-built hangar, recently resurfaced with concrete to house the club aircraft. There is plenty of aircraft and MT maintenance space, as well as our kitchen and comfortable clubhouse and bar above. Short-term parking for caravans and an extensive area for camping is available. In 2019 we

installed a solar and wind-based electricity generation system, which provides us with the power we need with minimal use of the backup generator. Our Skylaunch winch is just three years old and we are planning to begin the renewal of our two-seater fleet. Currently we use a powerful Pawnee to tug and have access to a Venture motor-glider.

We have an excellent fleet of superbly maintained aircraft and our aim is encourage members to develop their flying in whatever way suits them. With a mix of Full Cat and Assistant Instructors, and BIs, full training is offered and our approach is to see going solo as just a waypoint en-route to Bronze with Cross Country Endorsement. We are an enthusiastic cross-country flying club and also have many members, who principally fly locally or whose interest covers other areas of gliding.

We are very proud to have a member of the National Gliding Team and a junior aerobatic champion among our members. We have strong cadet and junior section and are delighted to host Bath University Gliding Club at the Park.

Martin Davidson

JOIN THE CLUB



Andrew Jarvis reflects on being part of a multi-national family

AS PRESIDENT of the Vintage Glider Club, mine is perhaps not an unbiased voice, but I really do believe that joining the VGC has been life-changing for very many people. You get so much for so little outlay.

Let me explain, starting with the practical matter of insurance. I was going to write in some detail about the VGC insurance scheme, but we've had to delay this article for now, so I'll just say that, as a reasonably experienced VGC pilot, you become eligible for third party insurance at a bargain price through a scheme which has run for over 30 years.

Now, what else can the VGC offer the glider pilots who want to broaden their experience on a shoestring budget? Starting with the mildly bad news, the annual subscription has just risen to £36, but with no further rise likely for several years. So, it's just the cost of an aerotow to join our 900 members! Having a VGC number allows you to register for the many rallies held every year both in the UK and widely across Europe.

A 'jewel in the crown' of the VGC is our house magazine, the *VGC News*, brilliantly edited by Bruce Stephenson, which you'll receive three times a year. The magazine naturally covers all aspects of VGC affairs, with special articles on gliders you've never heard of and, surprisingly, a superb glider modellers' section, presented by Chris Williams. Model gliders these days are quite amazing – I just worry that some of them cost more than the real thing!

Perhaps you feel you must own a beautiful gull-winged beauty, with varnished plywood and an open cockpit, in order to be a proper VGC member? Well, we'd all love to own such a classic, but, for various reasons, many of us settle for something more utilitarian,

such as the trusty K-6, or maybe – as in my case – an Oly 463. If you're looking for a pocket money glider, well, just keep poking around those trailers half-buried in brambles and nettles – as VGC archivist David Williams has been urging for some years. Perseverance may well be rewarded, as I plan to tell you – again in a later issue.

Does the VGC accept glass-fibre gliders at its rallies? At present the general answer is still 'no'; but it is the elephant in the room, and there will never be full agreement on this important issue. As is often pointed out, some early GRP gliders are older than the final wooden ones. Besides, who would turn away a pretty Libelle, from a UK rally at least?

Social aspect

Of course, we VGC folk love flying our gliders when the conditions are just right, but the social aspect of the club is equally important and, for many people, more so. We are like a huge multi-national family – admittedly a dysfunctional one – in that our conversations are interrupted by intervals of 12 months between international rallies!

Maybe you'd like to widen your gliding horizons just a little? Well, with UK vintage events this year happening at The Park, Long Mynd, Parham (Southdown), Camphill, Stratford, Lasham and Booker, why not join us? If that still sounds a bit domesticated, our two VGC international events (the smaller Rendezvous and the main International Rally) are both in Northern Germany, just a few hours from the Dunkirk ferryport.

A visit to the VGC website, a couple of keystrokes and you'll help nudge our membership up to the magic 1,000! Don't delay, the sooner you join, the better the chance of getting all three 2020 issues of *VGC News*!

Above: Beautiful DFS Meise D-7380 at the VGC International Rally, Tibenham, 2010

Below: Grunau at Anklam, Germany



VINTAGE EVENTS FOR 2020

- **Park and Glide Rally, The Park, 8 May**
- **VGC National Rally, Long Mynd, 23-30 May**
- **Southdown90 (to coincide with Southdown's 90th anniversary celebrations), 8-12 June**
- **25th Camphill Vintage Rally and 10th Capstan Reunion, 19-26 June**
- **Olympian Week, Long Mynd, 13-17 July**
- **Wooden Wings Week, Snitterfield, 19-25 July**
- **VGC Rendezvous, Nordhorn, Germany, and 48th International Rally at Achmer, 25 July – 9 August**
- **Whispering Wardrobes, Booker, 28-29 August**
- **Slingsby Week, Sutton Bank, 29 August – 5 September**

THE TROUBLE WITH TOMMY

Southdown GC's Peter J Holloway shares a fictional gliding tale of a D-Day veteran caught up in the mists of time

THE committee was very worried about Tommy Briggs. He was not the only ex-Airforce pilot still flying at the club during the Seventies, but he was certainly the most eccentric. While others spoke of near landouts and busy turning points, Tom would smile seraphically as if in another world, which he frequently was. "What about the flak over Cologne?" he would say, banging his fist on the table. "They never mentioned that at the briefing did they?"

It was assumed that he was only joking, or simply reminiscing, since most of the pilots sitting in the clubhouse weren't born when Tom had learned to fly. His short, squat frame, thinning grey hair and bifocals hardly fitted the popular image of a Mustang fighter

pilot, escorting bombers across occupied Europe, or supporting ground troops at low level on D-Day. But that is exactly what Flight Lieutenant Tommy Briggs had once been, one of the famous 26 Squadron based at Gatwick.

When the war ended, he was as surprised as anyone to find himself still alive and vowed never to go near an airfield again. But, like so many others, Tommy missed the comradeship that was to be found among pilots talking about aviation. He would fly anything that he could get his hands on, but his post-flight banter always seemed to be from the realms of fantasy. "Did you have a good one, Tom?" asked the CFI, just to wind him up, as they opened the bar for the evening drink and post-mortem.

"I saw a couple of 190s near Dover heading for home, but they were probably short on fuel. They only have about 10 minutes over London you know." It provoked the usual irreverent laughter, but Tommy's face remained serene.

After one cross-country flight, the safety officer debriefed him while studying his barograph trace. It had only marginally cleared the restricted airspace around the parachute dropping zone at Headcorn. "Did you see any parachutists, Tom?"

"I saw a couple of parachutes open up behind a burning Lancaster," Tom replied. "I think it was the mid-upper turret and rear gunner. I was busy watching my tail. Bader used to drum that into us; whatever's going on, always check your rear. There was so much flak it was impossible to be sure. Is somebody missing?"

The safety officer, a man of considerable experience, saw no point in pursuing the subject. He decided that something must be done, just in case it was not simply Tom's macabre sense of humour. The committee decided to institute a check-up for pilots of a certain vintage, which constituted a viva (oral exam) and a flying test. It was advertised as a simple precaution to cover insurance requirements, akin to the DVLA

Black Mountains Gliding Club *Mountain Soaring Mecca!*

Visit our friendly club for exhilarating mountain flying



- Over 100 km of local ridges
- Superb ridge and wave
- Few airspace restrictions
- Groups and individuals welcome
- Open 7 days/week March-October

www.blackmountainsgliding.co.uk

enquiries@blackmountainsgliding.co.uk 01874 711463

checks for senior citizen drivers. It only concerned half a dozen club members and, finally, it was Tom's turn to be grilled.

"What are the three principles of aerodynamics?" articulated the examiner slowly. "Actually there are four," Tom responded disconcertingly. "Weight, lift, drag and thrust." After a moment of confusion, the examiner returned his gaze to the crib sheet before framing a second question. "Why is Bernouilli's work so important in explaining how aircraft wings provide lift?" Tom smiled as one thoroughly enjoying what he took to be a friendly conversation before replying: "Which Bernoulli do you mean? There were two of them you know, father and son."

Nothing unsettles an interrogator more than being asked a question so the viva was brought to a rapid, though truncated, conclusion.

The pre-flight checks in the motor glider for the flying test were soon completed, and all the usual skills were examined: recovery from a stall, recognising an incipient spin, engine failure and so on. Tom's responses were exemplary and, with test over, the instructor was happy to let him go off for 'a jolly', as Tom put it.

With the cockpit now entirely the preserve of Flight Lieut Briggs, he taxied up to the take off point and rapidly ran through the checks with his radio pressed to transmit. Experience had taught him not to hang about: "Go up or blow up!" Wasn't that what Johnny Johnson used to say? It was not in the book, but vital all the same. His Mustang cockpit swam before his eyes, the years slipped away and suddenly he was a fighter pilot again, escorting a bomber group to a target he had visited many times before.

"Check left and right main and fuselage fuel systems."

"Check 15/20 psi oil pressure."



Cartoon by Ross Martin

"Check wing flaps."

"Check communications ON, yes of course they were, don't hang about get airborne without delay."

Anyone listening on the right frequency could follow every step of Tom's sortie into the past. As soon as he crossed the coast he maintained radio silence, but a radar report indicated a light aeroplane on a bearing of 095 degrees: apparently heading for Cologne. That was just before they lost him, as Tom began to hedge-hop his way across Europe, with a skill he had never lost.

The committee came to a decision. Something would have to be done about Tom.

'GO UP OR BLOW UP!' WASN'T THAT WHAT JOHNNY JOHNSON USED TO SAY? IT WAS NOT IN THE BOOK, BUT VITAL ALL THE SAME

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

AVOIDING UPSET

‘Don’t drop the pilot’ is the message from BGA safety team

IN EARLY blood transfusions, the recipient was connected directly to the volunteer donor. The operation risked killing not only the patient but the healthy donor as well.

The gliding equivalent is the aerotow. The difference is that the outcome is mainly in the hands of the recipient glider pilot, who generally survives unscathed. Aerotow upsets have killed four tug pilots in the 45 years of our records, and there have been nearly 80 other upsets. One third of these upsets were in the past six years, with seven in 2019 alone; some of them were very close shaves that could easily have ended differently.



An aerotow demands skill and attention (Jordan Bridge)

CLIMBING OUT OF THE DIVE, I WAS NOTICEABLY BELOW THE HEIGHT OF THE ELECTRICITY PYLONS

■ Clubs can obtain printed copies of Safety Briefings from the BGA Office.

STRAIGHTEN UP & FLY RIGHT

Mechanics of aerotow upsets

An aerotow upset occurs when the glider, via the towrope, exerts a load that takes the tug outside its range of controllability [1-6]. This happens when the glider pilot allows the glider to stray too far, or too quickly, from its proper position behind the tug.

A lateral or vertical force can overpower the rudder or elevator and stall the fin or tailplane. The most dangerous case is when this lifts the tail and puts the tug into a dive. The two aircraft tend to diverge, as the tug descends and the glider climbs above it.

Longitudinal forces then come into play as the rope tension rises, slowing the tug and causing reduced control authority and potentially stalling the aircraft. As the weak link in the tow rope will typically sustain the empty weight of the aircraft, deceleration can be very rapid. A ‘slingshot’ or ‘kiting’ can then occur, as the glider ‘winch launches’ above the diving tug.

Accident and incident reports show that tug upsets develop very quickly with little prospect of releasing the cable in time – and, with the towrope under load and possibly at an unusual angle, the release can in any case be difficult to operate. The tug pilot can be thrown around enough to make it hard even to reach the release or guillotine.

Low-level aerotow upsets

Half of the aerotow upsets in our records occurred below 500ft: four proved fatal for the tug pilot, and half of the remainder could easily have ended similarly. In early years, most happened because the glider pilot

lacked the skill to control the glider.

More recently, the principal cause has been distraction. Dealing with open airbrakes, insecure canopies, instruments, flaps, ventilation, wing drop, a camera and an insect sting have all distracted otherwise competent glider pilots from maintaining position behind the tug. Many of these pilots were very experienced.

What the tug pilots reported:

■ *From 250ft the tug was pitched 60° nose down and I released the rope. I kept the nose down to regain speed and managed to pull out of the dive at about 60kts. I estimated the ground clearance as less than 50ft.*

– Glider pilot not current on aerotow, 2018.

■ *As the K-13 rose rapidly it lifted the tail of the tug. P1 in the K-13 released. Tug pilot pulled out at a height that his tow rope clipped the trees underneath him.*

– Distracted by open airbrakes, 2017.

■ *I looked into my mirror to see the glider ascending very rapidly until it was out of sight above me. I felt my nose drop sharply and could not correct it with elevator. I was approx 150ft and fortunately flying into the valley.* – Distracted by open airbrakes, 2016.

■ *The tail of the tug started to lift. I steadily applied back stick to counteract, but to no avail. The nose-down attitude increased to a steep dive. I reached for the guillotine and on the second actuation felt the cable had gone. With the stick still back, the tug rounded out from the dive and started to climb. This happened very very quickly. I was noticeably below the height of the electricity pylons.* – Distracted by insecure canopy, 2015.

Aerotow upsets at higher altitudes

The other upsets in our records mostly took place above 1,400ft and generally fell into two groups: pilots failing to check that the rope had detached before turning; and instructors allowing students to get too far out of position. Lateral upsets – commonly during training – sometimes evolved into vertical upsets, and half of the higher-altitude upsets developed into a ‘slingshot’. Distraction, including pointing out

landmarks, was again a factor; and turbulence played a role in a handful of cases.

Although there is height to recover, aerotow upsets at higher altitudes can be deeply distressing for tug pilots. After the first sortie during a deliberate investigation of aerotow upsets some years ago, the tug pilot is reported to have landed to fetch a parachute. Both tug and glider pilots often report feeling shaken even though no damage or injury resulted. They should not fly again until fully recovered.

■ At 3,200ft I waved the glider off. My view from the forward screen changed, in an instant, from blue to green!!! I have read about how quickly these incidents develop, but it was truly eye-watering how rapidly things happened. – Glider pilot turned without releasing, 2015.

Contributory factors

In addition to distraction, a number of physical factors are known to increase the likelihood or speed of an aerotow upset:

- **Short towropes** amplify the effect of the glider's displacement and make the glider pilot's job harder. Retractable towropes can be limited in length by the storage drum.
- The glider's **belly hook** provides a lower corrective moment than the nose hook, and is more conducive to 'slingshot' or 'winch launching' behind the tug.
- **Lightweight tugs** will succumb to lighter lateral forces than heavier tugs and are more rapidly decelerated [7.8].
- **Turbulence** requires continuous correction.
- **Wind gradient** can encourage the glider to climb quickly above the tug.
- Gliders with **high wings** and/or **low wing loadings** will be more easily moved out of position by gusts and snatches.
- Longitudinal stability is reduced by an **aft centre of gravity** and can be worse with an **all-flying tailplane**.
- Poor trim and **changes in flap setting** will affect the glider balance.
- Poor **visibility** can hinder judgement of vertical position.
- **Pilot inexperience** and **lack of aerotow currency** affect a pilot's ability to maintain position [9].

Both the glider pilot and tug pilot should assess the likelihood of these factors before deciding to launch.

Tow position

Flying too high behind the tug reduces its control margin but, as movement is more important than position, the stability of the

tow position is a major consideration. In the normal tow position, the glider should be a little above the tug's slipstream so that lateral control is not disturbed by the downwash – a particular consideration for heavy, long-wing gliders. If the low tow position is adopted, it's important that the transition back to the normal tow is made smoothly without overshooting.

Lightweight tugs may create less downwash, and fly more happily at the speed of slower gliders, but the acceptable deviation in tow position is smaller [7].

Safe aerotowing

Before launching, check for any of the above risk factors, and mitigate them or postpone launching if necessary. Prepare the cockpit to avoid later distractions, and don't rush your pre-flight checks. If possible, establish radio communication with the tug pilot.

Avoid distractions during the tow and give your full attention to maintaining position. An ab-initio pilot or student won't mind a gap in your patter for the first part of the aerotow, especially if you explain why beforehand. Leave fiddling with the instruments and ventilation until later.

There's no reason to raise the wheel until you've released: it'll only save half a groat from your launch fee, and it shows that your attention is elsewhere. Remember that others could copy your example. As a deterrent, one CFI has briefed his tug pilots to release any glider that retracts its undercarriage on tow.

Instructors should leave aerotow exercises until a safe height, guard the stick closely and keep a hand on the release, and take over instantly should things go awry.

The BGA is reviewing its advice about lookout during the aerotow. Current thinking is that, at least until a safe height has been reached, the glider pilot should focus upon the tow, ensure that the tug remains within his/her field of view, and leave the wide lookout scan to the tug pilot. When looking out before release, the pilot should remain alert to the upset risk.

At the end of the tow, check that the cable has released before turning. Pilots have mistaken trim, airbrake and undercarriage levers for the cable release, misinterpreted noises, or simply assumed that the cable had detached. It's crucial to check visually.

An aerotow is formation flying, and demands skill and attention. You have the tug pilot's life in your hands.

Tim Freegarde and the BGA safety team

I HAVE READ ABOUT HOW QUICKLY THESE INCIDENTS DEVELOP, BUT IT WAS TRULY EYE-WATERING HOW RAPIDLY THINGS HAPPENED

■ For more information, see the Safe Aerotowing and other sections of the BGA website [1-4], section 4-17 of the BGA Instructor Manual [5] and *Aerotowing Gliders* by John Marriott [6].

- [1] BGA Safe Aerotowing
<https://tinyurl.com/flyright2004>
- [2] BGA Managing Flying Risk
<https://tinyurl.com/flyright2005>
- [3] BGA Towing/Operating Tug Aircraft
<https://tinyurl.com/flyright2006>
- [4] BGA Aerotowing Guidance Notes
<https://tinyurl.com/flyright2007>
- [5] BGA Instructor Manual, section 4-17
<https://tinyurl.com/flyright2008>
- [6] J Marriott, *Aerotowing Gliders*, AuthorHouse, Milton Keynes (2011)
- [7] *Positions extremes et ULM, FFVP Actions Vitales!* (8), 13 (Nov 2018)
<https://tinyurl.com/flyright2009>
- [8] Swiss accident report 2133 (2007)
<https://tinyurl.com/flyright2010>
- [9] Swiss accident report 2346 (2017)
<https://tinyurl.com/flyright2011>

PREVIOUS 'FLY RIGHT' ARTICLES

- The Perils of Distraction* (Apr/May 19)
- Keeping Safe in Thermals* (June/July 19)
- Why It Is Good to Think Ahead* (Aug/Sep 19)
- The Effects of Wind Gradient* (Oct/Nov 19)
- A Fun but Safe Introduction* (Dec 19/Jan 20)
- Stop the drop* (Feb/March 20)

BGA accident/incident summaries

AIRCRAFT

Ref	Type	Damage	Date, time	PILOT Injury	P1 hours
124	Discus	minor	16/07/19, 15:30	none	5000
Undercarriage collapsed during the aerotow ground run. The glider was dragged along the ground for a few seconds, damaging the underside of the fuselage, before the pilot could locate and pull the release.					
128	ASG 29	minor	18/07/19, 15:45	none	2500
Wheel-up landing caused minor damage to the front fuselage underside. After using the turbo to motor back towards the airfield the pilot was unable to stop the propeller from turning, despite slowing to stall speed, and therefore unable to retract the engine. The drag from the extended engine meant that the pilot had to restart the engine to get within glide range of the airfield before flying a straight-in approach. While coping with the engine distraction the pilot omitted his pre-landing checks and landed with the wheel up.					
129	DG-505	minor	26/07/19, 11:30	none/none	1373
Heavy landing. Late in the approach the airspeed reduced, the P1 prompted the P2 to maintain approach speed so the P2 lowered the nose. The subsequent round out was late and ineffective, the tailwheel burst and the nosewheel fairing broke off during the landing. The low-airtime P2 was making his first attempt at landing on only his second flight after a long (5+ years) absence from gliding. The report refers to the accident as a late takeover by the instructor, , BGA analysis suggests that major errors at critical stages of flight are frequently unrecoverable by the P2 and that instructor take-over is safer.					
130	SF 27	substantial	03/07/19, 13:10	none	9
Wingtip caught in crop. The pilot recovered from a winch launch failure at a few hundred feet a to and elected to land long where the airfield was wider. However, he opened the airbrakes and began to descend into the 50m-wide centre part of the runway. The low-time pilot, on his first flight on type, had not lined up with the middle of the runway and a wingtip caught in the crop at the edge of the runway. The glider groundlooped, damaging the nose and twisting the rear fuselage.					
133	Cirrus	destroyed	27/07/19, 12:00	fatal	-
AAIB investigation.					
137	Dimona	substantial	03/08/19, 17:30	none/none	24
Heavy landing. The P1 was blinded by the sun on final approach and the TMG hit the ground hard before completing the round out. One of the undercarriage legs broke on impact.					
138	SB 5	destroyed	07/08/19, 14:05	serious	60
AAIB Investigation.					
139	Cirrus	minor	07/08/19, 14:10	none	377
Field landing damage. By the time the pilot realised that he would not make it back to the airfield there was only one suitable landing field available. The pilot flew a crosswind landing into the field and applied the wheel brake. The wheel sank into the harrowed surface, stopping the glider abruptly and tipping it onto its nose. The underside of the nose was damaged, an undercarriage door broke off and the wing spigot bearings damaged .					
140	Nimbus 4	substantial	08/08/19, 13:30	none/none	not reported
Competition field landing damage. After the engine failed to start, the pilot continued the circuit into the chosen field. The landing direction was across the slight slope and the uphill wingtip caught in stubble, groundlooping the glider. The rear fuselage broke off and the tailplane was damaged.					
141	K-13	minor	13/08/19, 13:35	none	13
Heavy landing damaged nosewheel. A witness reports that the pilot reduced the airbrakes before rounding out. The glider ballooned a few feet, then started to descend again before running out of energy about 3ft agl.					
143	Dimona	destroyed	15/08/19, 16:05	none	838
Heavy landing in gusty conditions. The pilot reports that a gust hit the TMG as he was rounding out. The aircraft ballooned and then landed heavily. The pilot tried to taxi off the runway, thinking that the tyres had burst. In fact, the undercarriage had broken, the fuselage was cracked and the propeller had struck the runway and broke. The CFI points out that the pilot could have flown a go around after the ballooned round out. He also pointed out that the pilot hadn't flown for over a month and that a nearby club had stopped flying because of the gustiness of the wind.					
146	DG-300	minor	18/08/19, 14:30	none	100
Field landing groundloop. The ground run was across a slope and the port wing caught on the ground. The ground loop damaged the root of the port wing, as well as the gel coat on the underside of the glider.					

BGA accident/incident summaries *continued*

AIRCRAFT

Ref	Type	Damage	Date, time	PILOT Injury	P1 hours
148	K-8	substantial	30/08/19, -	none	12
Wingtip hit tree on final approach. The K-8 was seen to be thermalling downwind of the airfield. After leaving the thermal the student pilot realised that the wind had backed and he was too low to fly a normal circuit so set up a straight-in approach to the reciprocal runway, which was now more into wind. His approach path took him too close to the only tree on the downwind side of the landing area. The left wing caught in the tree at about 15ft agl, yawing the glider before the pilot was able to regain control and make a safe landing. The impact left an 8" wide hole in the leading edge of the wing.					
125	ASW 15	none	19/07/19, 10:30	none	530
Tug upset at 400ft ato. The glider pilot was stung or bitten on the right arm and as he flinched he pulled the stick back.					
126	K-6	none	16/07/19, pm	none	-
Pilot felt unwell during flight so returned to the airfield.					
127	Mosquito	none	16/07/19, 12:35	none	396
Tug upset. After reaching his requested release point, the glider pilot flew a climbing turn away from the tow rope before actually pulling the release. The tug was tipped into a dive and the tug pilot tried to pull his release, but the weak link broke first. At the same time, the glider pilot pulled his release and the rope was lost over farm land. The report points out the importance of verifying that the rope has released before climbing away from the tow.					
131	DG-505	none	28/06/19, 12:00	none/none	7018
EuroFOX tug and glider divergence during aerotow. While completing a boxing the wake exercise the glider climbed from the bottom right to top right a little too far to the side and slightly too high, yawing the tug and slowing it. The tug pilot responded by lowering the nose, but this put the glider even higher relative to the tug, slowing the tug even further. The glider pilots were unable to steer the glider quickly enough to prevent the divergence increasing and so pulled the release. A recreation of the situation on a second flight led to a repeat of the divergence. The report suggests that light weight tugs such as the EuroFOX are more prone to this effect.					
132	T-61	none	28/06/19, 15:30	none	600
Undershot approach landed short of the airfield. The pilot had not flown the TMG for several months as it was grounded as it transitioned from CAA to LAA oversight. The pilot shut the engine down at 2,200ft ato, intending to fly a glider circuit. However, he positioned the base leg too far back in the 15G25 knot wind so attempted to start the engine. Despite several attempts, the previously reliable engine failed to start and the TMG landed in a crop field well short of the airfield.					
134	K-6	none	28/07/19, 13:30	none	87
Canopy detached during winch launch, drifting and landing undamaged in crop while the glider pilot rejected the launch and landed on the airfield. The canopy was attached to the fuselage using two rear lugs fitted into sockets in the fuselage and a locking lever holding down the front of the canopy. The pilot had locked and then unlatched the canopy to prevent over-heating twice before launching due to gliders landing on the airfield in front of the launchpoint.					
135	PA 18	substantial	14/07/19, 11:50	none	845
Tug taxied into glider. The tug backtracked until abeam the glider and then turned towards the glider. The tug's left wing struck the raised right wing of the glider and the tug then yawed into the leading edge of the LAK wing before the tug pilot could stop the engine. The glider's wing was severely damaged, the propeller and spinner of the tug were damaged and the engine shock loaded.					
136	K-21	none	29/07/19, 14:30	none/none	1380
Cable drifted off airfield after cable break. The wind was forecast to back and increase, the duty instructor was expecting to have to stop launching at some point as the wind became increasingly across the runway. On the last flight the P2 did not adequately correct for drift in the climb and the instructor was unable to verbally coach the P2 into correcting by the time the cable broke. The cable landed in some trees across a road bordering the airfield.					
142	ASW 19	none	12/08/19, 12:00	none	530
Airbrakes opened at start of aerotow. The pilot cites a number of factors including lack of currency, the new pre-flight mnemonic, launchpoint distractions. The pilot did not notice the signal from the tug and it was only after several radio calls that he realised that the brakes were open.					
144	Skylark	none	17/08/19, 11:50	none	1100
The report refers to a "catapult" launch failure due to premature release by ground crew. No further information.					

Continued on p68

BGA accident/incident summaries *continued*

AIRCRAFT

Ref	Type	Damage	Date, time	PILOT	P1 hours
145	Astir	none	21/08/19, 14:55	none	8
Wheel-up landing. Returning after a local soaring flight, the pilot recognised that he would not be able to reach the high key area. He ended up flying straight onto final approach, realising late in the approach that he had forgotten to lower the undercarriage.					
147	Grob 103	none	25/08/19, 12:40	none/serious	228
Trial flight passenger tripped on the cockpit edge while exiting the glider, fell to the ground and fractured her wrist.					
149	DG-100	none	23/08/19, -	none	-
Insecure tailplane due to distraction while rigging. After putting the wings on the pilot placed the tailplane onto the fin and went to the cockpit to fetch the screwdriver to secure the tailplane locking bolt. At this point he was asked by the pilot of a glider in an adjacent trailer to move his glider to make room for the other pilot to rig. The pilot put the tow out gear onto the glider and towed it towards the launch grid. On the way he noticed in the mirror that the tailplane was at an unusual attitude and realised that he had forgotten to secure the tailplane locking screw.					
150	LS4	none	24/08/19, 16:20	none	164
PIO during aerotow take-off. The aerotow rope had been attached to the glider's winch hook, the pilot released when the PIO started and landed off the airfield.					
151	Pegase	none	01/09/19, 13:00	none	27
Aerotow aborted due to unusual banging noise as the glider lifted off. The glider had been rigged and inspected by an experienced member, who used the opportunity to train an unqualified pilot. The club required a secondary independent inspection after rigging, but the member asked the unqualified pilot to sign the DI book so he could then sign for the independent inspection. The pilot who was to fly the glider noted the absence of wing tape during his walk round, but did not want to delay taking off on a good soaring day. In the event, the fuselage inspection hatch was also not taped down and therefore unfastened. It came off during the ground run and was left dangling on a restraining wire.					
152	Astir	none	31/08/19, 11:00	none	-
While de-rigging the glider for its annual inspection the club members noted that the rear wing locking collars were not fastened. One was in the closed but unlocked position, the other in a partially locked position. The glider had been inspected seven times since being rigged. The rear locking pins were not visible from the cockpit and could only be visually inspected by opening the fuselage inspection hatch.					
153	K-18	none	25/09/19, 15:50	none	23
Stall after winch launch failure. The winch driver saw the cable detach from the glider below the full launch height, he then watched the glider briefly remain in the climb attitude before the nose dropped and the glider entered an incipient spin. The pilot recovered from the spin and flew a circuit to a safe landing. The pilot reports being current on launch failure practice and cannot explain why he failed to fly the normal winch launch failure recovery.					

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 or by post to the address on p3.

Launch Point

Supporting British Gliding

Applications for Caroline Awards via The Launchpoint Trust are now active, to apply go to:

<https://members.gliding.co.uk/launchpoint/bursary-application/>

READY, STEADY... START THE SEASON 2020 IN SAINT-AUBAN



for the weeks starting : Monday 17/02,
09/03 and 16/03

1500€ per week !



booking@cnvv.net or +33 (0) 492 642 971 for reservation - www.cnvv.net

includes : 6 days glider rental + instruction - towing 1h max - 7 nights in north building (breakfast included) - CNVV membership

**Fly at Nympsfield, enjoy ridge and wave soaring,
Visiting pilots and gliders welcome throughout the year**



**BRISTOL AND
GLOUCESTERSHIRE
GLIDING CLUB**
SOARING WITH THE BEST

**New members welcome - join us and fly over the Cotswolds and Severn Valley
Extended course program for 2020, tuition from beginner to advanced level
Excellent for club expeditions & visiting pilots
Clubhouse with bar, members kitchen and 'The Old Flying Club' Café**

Website: bggc.co.uk, or contact office@bggc.co.uk, Tel. 01453-860342



ZULU GLASSTEK LTD

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



ASG32 – 20m world champion twice.
Available as self launching also available
with electric sustainer.



AS34 Me – standard class and 18m self-launch
electric – available 2020



ASK21B – Brand new version of the
world's most successful training glider.

SALES, REPAIRS AND MAINTENANCE CONTACT:

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

BGA BADGES

No.	Pilot	Club (place of flight)	Date
FAI 1000k Badge			
713	Jake Brattle	Bristol & Glos (New Tempe, South Africa)	28/11/2019
FAI 1000k Diploma			
31	Martin Clark	Lasham (New Tempe, South Africa)	27/11/2019
FAI 750k Diploma			
128	David Griffiths	Lasham (New Tempe, South Africa)	22/11/2019
129	Jake Brattle	Bristol & Glos (New Tempe, South Africa)	28/11/2019
Diamond Badge			
7626	Miles Bailey	Bicester	23/12/2019
Diamond Height			
3-1876	Miles Bailey	Bicester (Lleweli Parc)	23/12/2019
3-1877	Szymon Bartus	Lasham	02/01/2020
Gold Badge			
	Szymon Bartus	Lasham	16/12/2019
Gold Height			
Paul Whitters	Staffordshire (Milfield)	23/10/2019	
Szymon Bartus	Lasham (Lleweli Parc)	16/12/2019	
George Downing	Lasham (Portmoak)	27/10/2019	
Silver Distance			
Jonathan Rowney	Bannerdown	01/09/2019	
Silver Duration			
Nicholas Stuart	Lasham	20/08/2019	
Martin Selby	Shalbourne	03/07/2019	
Richard Allan	SGU	05/07/2019	
Silver Height			
Archie Lucas	Stratford On Avon	08/09/2019	
Stanislas Bory	Shalbourne	08/09/2019	
Thomas Docherty	SGU	18/01/2020	
Cross Country Endorsement			
Christopher Warnes	Devon & Somerset	23/10/2019	
Martin Roberts	Bowland Forest/ York	08/01/2020	
Thomas Hesp	Norfolk	29/12/2019	
Edward Hillman	Seahawk	18/01/2020	
Stephen Clinton	SGU	07/02/2020	

INSTRUCTOR RATINGS

Basic			
Graham Hoile	Bath, Wilts & North Dorset	17/01/2020	

Congratulations to everyone listed achieving badges and instructor ratings



BRYCE BRYCE-SMITH (1930-2020)

WE ARE very sad to report that Bryce Bryce-Smith, one of the legendary glider pilots of his generation, passed away in January 2020, shortly before his 90th birthday.

Born in Haddenham near Cambridge, Bryce went to the Cambridge Boys High where, as a 16-year-old member of the ATC, he learnt to fly in single-seaters (as they did in those days) from Marshall's. After 16 months and 120 launches, he had his first flight in a two-seater! He was ever present as a very active ATC instructor until he joined the Cambridge University Gliding Club in 1955, achieving 65 years continuous membership of CUGC and CGC.

Leaving school at 18 and, whilst employed by the Cambridge City Council, he became a Chartered Civil Engineer, remaining with them until retirement, interrupted only by two years National Service. Being Bryce, it had to be as a pilot in the RAF.

In 1962 he married Gillian, who later became editor of *S&G* and for whom he contributed technical advice and proof-read much of the text. Son Robert and daughter Suzanne followed in due course; Bryce taught each to fly and they both became airline captains. Gillian and Bryce had three grandchildren. Sadly, Gillian predeceased Bryce in 2005 and was much missed by all who knew her.

Between 1946 and 2002, when he suffered a debilitating stroke, Bryce flew pretty much anything with wings from the T7 Cadet and almost every Slingsby type. With the RAF the Chipmunk, Oxford, Meteor and Canberra and, as a tug pilot, Tiger Moth to Pawnee. That he owned, or had a share of, a Skylark 3G, Dart 17R, Cirrus, Kestrel 19, Vega, Ventus CT and a DG500-22 (which he shared for over 28 years) is also recorded in his 11 log books.

By 2002 Bryce had clocked-up 4,200 power hours, 4,500 in gliders, achieved Gold and a Diamond. The stroke put paid to PIC power and solo glider flying, but he added another 50 hours power and around 500 in gliders with Robert plus a variety of willing friends; until late 2019 when getting in and out of a cockpit became too difficult.

The Bryce eye-glint was well known. Epitomised by a flight in a Meteor when he throttled the engines back so economically that he flew well beyond the published fuel endurance and was reported missing. He was, probably, just exploring how well it soared.

Bryce's enthusiasm for gliding and his civil engineering expertise were frequently put to good use. He designed and built the family home, then rebuilt the remains of two Skylark 3s, a Sport Vega and a Kestrel in his "glider-sized shed". He adapted, or built, hangars and workshops for CUGC at Marshall's and Duxford, and was a major force in the move of CUGC to Gransden Lodge. Bryce designed much of the layout and infrastructure, many of the buildings, used his engineering contacts and influence to great effect, and was CUGC/ CGC's chief tug pilot for 35 years.

Full Cat instructor, inspector, secretary, assistant treasurer, chief tug pilot, chairman, president and honorary member, all round mover and shaker, Bryce epitomised the spirit of gliding and, having completed his final glide, we can but reflect on all that he achieved and recall that twinkle.

Richard Brickwood, Cambridge GC

SARA KITCHING (1966-2020)



SARA KITCHING, 53 years old and 15-year partner to long-term club member and tug pilot Dave Gilham, died on 13 January 2020 at Nottingham City Hospital, three months after her fifth operation on a long-term brain tumour.

Sara was one of those people who was instantly likeable, with a great sense of humour. She even called her tumour her 'pet brain tumour'. Her brain surgeon, the famous Henry Marsh, described her as 'truly remarkable' for her attitude and resilience in the face of what she had over a 23-year period. The way she dealt with it

was heartbreaking, but inspirational.

Her first brain tumour operation was shown on a BBC programme called *It's All in the Mind*. Sara is seen being woken up in the middle of the operation for the surgeon to stimulate areas of the brain with a probe whilst she is asked questions. She is heard to ask for a drink because she is thirsty and asks that the drink be a Cabernet Sauvignon! Got to admire that spirit and sense of humour!

She loved gliding and particularly liked aerobatics. She took the controls regularly, knowing Dave was there to prompt and guide her. Her flying skills were excellent considering the relatively low number of flights undertaken. She took an active part in the social activities of our club and was a very popular lady.

Sara was always smiling. I have been unable to find a photograph of her when she hasn't had a smile on her face. She lit the room with her smile and showed tremendous courage. Sara was a sweet, kind, vivacious girl with a big heart, who was bubbly, full of life and always lived life to the full. She exuded kindness and warmth, was generous in every way and had a way of putting people around her at their ease.

Sara had an incredible spirit and love for a life well spent. She will be sorely missed by everyone here who knew her. Rest well, Sara.

Dave Gilham, Peterborough & Spalding GC

JIM THOMSON (1947-2019)



IT IS with great sadness I report the sudden death of one of our great stalwarts. I first met Jim in the mid 1970s at what was then the Lanarkshire & University Gliding

Club at Strathaven. He was always in his overalls, keeping the club fleet and equipment serviceable however hard the members tried to break them. He was working for Rolls Royce at this time before moving to Portsmouth in the 80s to take up a post at Vospers and specialising in big ship propulsion and transmission.

He joined Shalbourne Gliding Club at the same time and was a stalwart for many years and gaining his Silver Badge in a K-8 and becoming a BGA inspector. On retirement he returned to his home ground of Rutherglen in Glasgow and joined the

Scottish Gliding Centre in 2007, where he obtained a share in 648 the Astir syndicate and was still flying it up till his death.

He became very involved in maintaining our club fleet, taking over as fleet technical officer for many years. He was awarded a Certificate of Merit from the BGA for services to gliding and also an Honorary Life Membership to the SGC for services to the club.

Jim was a very private person and the only personal information that we knew about was his love for interesting holidays. He travelled to Antarctica, Nepal, Africa and the Galapagos Islands, and many more. It is the end of an era as so many of our gliding stalwarts give up through age, illness and death. Gone, but not forgotten.

Bob Petrie, Scottish Gliding Centre

MERVYN POCOCK (1931-2020)



WITH great sadness I have to report from the Bath, Wilts and North Dorset Club, that our ex-chairman and great benefactor Mervyn Pocock has died. Mervyn joined the Club in 1963, long before we moved to The Park and had previously been an aeromodeller. Beginning on a Grunau, he soon moved onto better things in the shape of a Skylark 4, and became very skilled as a mechanic, particularly as a restorer of Auster tugs.

Mervyn joined many of our club expeditions to places such as the Mynd and Aboyne and I'm sure many readers will remember him. Mervyn's memorial at The Park is our Puchacz G-MRVN which he provided and we registered in his honour. A memorial service was held at Melksham

on 15 January, and was very well attended.

Chris Basham, BWND GC

BWND members add:

■ Mervyn made himself almost indispensable to the club; any time transport was needed it was a Pocock's van which supplied it. Where did the avgas come from? – a Pocock's van of course, laden with 40-gallon drums, and when the great day for our move to the Park came it was Mervyn's vans that provided the transport. We always knew when Mervyn was on the airfield because of the old London taxi which he'd acquired and used constantly – it is still in the family. It was Mervyn and Roger Slade who, for many years, did all the maintenance on the club's Austers and later the pair of them did the very extensive rebuild of the Tiger Moth, which a group of us had acquired, turning it from a kit of parts into a very beautiful aircraft. – **Rob Lynch**

■ I remember one day when Mervyn and I were flying in the Bocian out of the Park. He was sitting in the front when we ran into a hailstorm. The cockpit was suddenly filled with flying white missiles. Mervyn was getting it in the face and, since he hadn't used the front seat for years, he didn't know how to shut the ventilator. We were in sink. There was a deal of shouting. The hail didn't help whilst he was being instructed how to close the ventilator. By the time ventilator was eventually shut we had half an inch of hailstones on the cockpit floor. I remember that we laughed together about it for years after. For me, Mervyn was a huge part of what happened at Keevil and at the Park. We did so much together, we had so much fun and we shared in the management of the club through our respective memberships of the committee. I'll miss him with great sadness. – **Dick Yerbrugh**



Leaving a legacy

Supporting people to progress in gliding is important. A gift to our charity "Launchpoint" will help develop the next generations of pilots, and you will be part of the future of gliding.

Please see <https://members.gliding.co.uk/leaving-a-gift-in-your-will/>

Oxfordshire Sportflying The Premier Motor Gliding School

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



www.enstoneaerodrome.co.uk
Telephone 01608 677208

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

Authorised and regulated by the
Financial Conduct Authority

Classifieds

Please send the text of your classified advert to Debbie Carr at the BGA office (not to the editor) - debbie@gliding.co.uk The deadline for classifieds to be included in **June/July 20** is **6 April 2020**. Text: 80p/word, minimum 20 words (£16). Black and white photographs: £6 extra. Box number: £3 extra. All prices include VAT.



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
or phone 01634 200203

Editor: Dave Unwin



life cover

for glider pilots

Without specialist advice glider pilots can often face expensive premium loadings when applying for life insurance. We can help you minimise or possibly avoid such loadings altogether.

- Life insurance 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

Flight Radio Telephony Operators Licence Training (FRTOL)

- FRTOL training courses
- Three-day course allows time for practice
- Includes written test
- Experienced commercial pilot and examiner
- CAA approved test facility
- Practical test conducted after the course
- Venue – Lasham Airfield

CONTACT Chris Marren for full details:
chris8marren@gmail.com



The World's best
Mountain Soaring

Ridge, Thermal, Wave - October through March

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
rbradley@telkomsa.net
Dick Bradley : +27 83 280 1028

East Anglia's Premier Gliding & TMG Training Centre



Ab initio, Bronze, Cross Country, Field Landings, Cloud Flying - Half-Day to Five-Day Courses
NPPL SLMG / LAPL(S) & SPL TMG Extension
Training and Exams

contact us
chairman@norfolkglidingclub.com 01379 677207
www.NorfolkGlidingClub.com





- ▶ Re-engineering any winch to Skylaunch specifications at lower cost
- ▶ Components, kits, services and upgrades for non-Skylaunch Winches
- ▶ All cables, Launch equipment, parachutes, etc
- ▶ Contact us for free, no obligation quotes or advice



"It's like going up on rails"

The final 4 Winches of an order of 25 now delivered to the British Air Cadets"

Tel: 44(0) 1939-235845 mike.groves@skylaunch.com www.skylaunchuk.com

Bronze & Beyond
Be ready for summer!

The book that tells you what every British cross-country pilot should know.
Available from BGA, larger gliding clubs & direct from:

www.mccullagh.biz

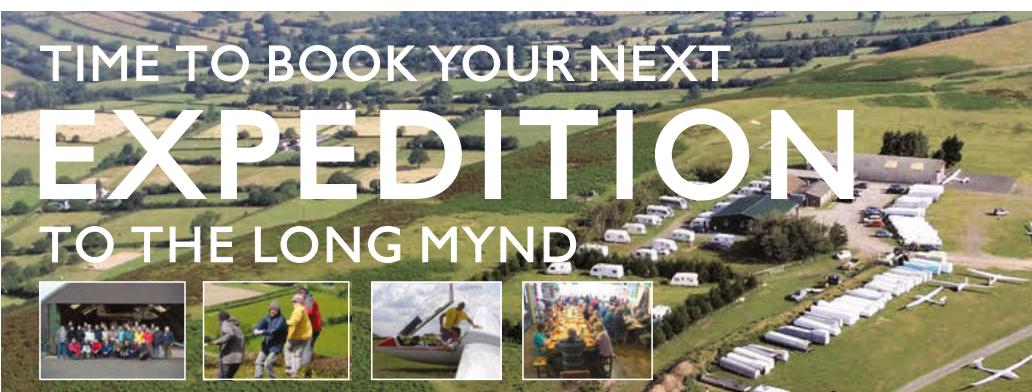
General Aviation Legal Consultant



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

TIME TO BOOK YOUR NEXT EXPEDITION TO THE LONG MYND



- secure your booking now
- open all year round
- open all flyable days
- five mile long west ridge
- virtually no airspace
- winch, wave and bungee
- on site accommodation
- caravan parking
- camping
- excellent on site catering

Midland Gliding Club, Long Mynd, Church Stretton, Shropshire SY6 6TA 01588 650206 www.midlandgliding.club

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 pyrotechnics
Tim@Airbornecomposites.co.uk
The Hangar, Wing Farm, Warminster, Wilts BA12 7DD

Tel: 01985 840981 (Workshop)
or 01985 841125 (Home)
Mobile: 07778 963277

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



INDEX TO DISPLAY ADVERTISERS

AFE/RD Aviation	inside back cover
Aeropaint Service	18
Airborne Composites	74
Anthony Fidler	72
Black Mountains	62
Bristol & Glos GC	69
BGA	IFC + 28 + 31 + 47
Centre National de Vol à Voile	69
East of England	74
Forbes Brokers	30
GASCo Flight Safety	72
Gavin Wills	72
Glider Services	63
Harry Mendelssohn	13
Hayward Aviation	13
Hill Aviation	19
John McCullagh	73
Jonker Sailplanes	7
Kennedys Law	73
Midland GC	73
Norfolk GC	73
North Yorkshire Sailplanes	74
Oxfordshire Sportflying	72
Philip Wills Trust	19
Service Centre Terlet	34
Skylaunch	73
Soaring Oxford	74
Soaring Safaris	73
Southern Sailplanes	back cover
Stein Financial	72
Sydney Charles Aviation	7
Zulu Glasstek	69

EES Aviation Services

www.eesaviation.com
Tel: 01858 880807 07729 322804
Hempole Farm, Welford, Northants NN6 6HF

Complete maintenance, repair and refinish for all
gliders and motorgliders
Professional spray paint facility
BGA, LAA & BMAA inspectors, authorised CT microlight repair agent

Photograph courtesy of glidingsport.com

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.

Southern England CAA Chart, edition 46

NEW

The new Southern England 1:500,000 CAA chart (edition 46) is valid from the 27th February 2020. Alongside the usual updates of airspace, radio frequencies, aeronautical facilities and miscellaneous data, the biggest change to the chart is, of course, the new Farnborough airspace. Incorporating 1 CTR (airspace starts at ground level) and 8 CTAs (airspace starts at some level above the surface), there is a lot of new airspace to consider when planning and flying, extending as far west as Southampton and as far south as Goodwood. As the official reference for VFR flight, CAA charts are the best way to ensure you stay legal and safe – so never fly with an out-of-date chart.

SOUTHERN ENGLAND & WALES
1:500 000 CHART ED46

Quick Find: SOUTHED46 £15.99



Chart	Edition	Release date	Next edition date
1:500,000 series			
Southern England & Wales	46	27/02/2020	
Northern England & Northern Ireland	42	25/04/2019	(23/04/2020)
Scotland	33	20/06/2019	(05/11/2020)
1:250,000 series			
North Scotland West	10	16/08/2018	(13/08/2020)
North Scotland East	10	19/07/2018	(16/07/2020)
Northern Ireland	11	12/09/2019	(09/09/2021)
The Borders	11	21/06/2018	(18/06/2020)
Central England & Wales	13	15/08/2019	(12/08/2021)
England East	13	18/07/2019	(15/07/2021)
West & South Wales	11	10/10/2019	(07/10/2021)
England South	23	23/05/2019	(21/05/2020)
London Heli Routes	18	13/09/2018	(10/09/2020)

Mountain High Oxygen systems

Mountain High oxygen systems are widely acknowledged as the highest quality portable aviation oxygen systems for pilots. Choose either a traditional 'constant flow' system, or Mountain High's advanced 'Electronic Delivery System (EDS)' which increases the useable breathing time of a single oxygen bottle by up to four times the 'constant flow' duration.

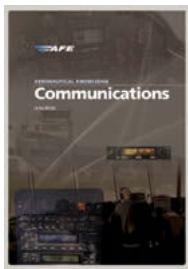
With the widest range of systems, oxygen bottles, masks, connectors and accessories and a comprehensive stock-holding at our Oxford shop, AFE will help you find your ideal oxygen system whatever your requirements.



MH
Aviation Oxygen Systems
MOUNTAIN HIGH
Equipment & Supply Company

Aeronautical Knowledge, Communications

If you're studying for your Flight Radio Telephony Operators Licence (FRTOL) this winter, there is no better preparation than AFE's Communications book: heavily illustrated, fully up-to-date and trusted by thousands of student pilots every year. 'Aeronautical Knowledge – Communications' is equally valuable to the holder of a radio licence wanting to refresh and update their radio skills.



Quickfind: AKCOMMS £14.95

All prices include UK VAT

TOST Tyres

AFE Oxford hold a comprehensive stock of TOST tyres, inner tubes and wheels to fit all common glider types (and most of the uncommon types too!). So if your tyres are starting to look a bit the worse for wear, replace them now before they stop you flying on the perfect soaring day. TOST recommend that when replacing a tyre, you should always replace the inner tube too rather than re-installing the original.



See afeonline for a complete list of TOST tyres, tubes, wheels and accessories

Polishes and cleaners

Now is the time to get your glider cleaned and polished ready for the 2020 flying season. AFE carries a complete range of polishing and cleaning products, our most popular brands include:

MGH17 Perspex canopy cleaner: includes a fine abrasive for removing scratches.

MGH10 Perspex canopy polish: restores clarity to all clear plastics.

Aerolack All in One plastic care system

Quickfind: MGH17 £17.99

Quickfind: MGH10 £17.99

Quickfind: AEROLACK £24.95



AFE OXFORD

THE UK'S LARGEST PILOT SHOP. OPPOSITE OXFORD AIRPORT, 10 MINUTES FROM JUNCTION 9 OF THE M40



PILOT SHOPS • MANCHESTER • OXFORD • PILOT SHOPS • MANCHESTER • OXFORD • PILOT SHOPS

THE RIGHT STUFF



www.afeonline.com

1000'S OF PRODUCTS AVAILABLE ONLINE

AFE OXFORD PILOT SHOP
Unit 2 Chancerygate Business Centre,
Langford Lane, Kidlington, Oxford OX5 1FQ

Tel: (0)1865 841441
Fax: (0)1865 842495
e-mail: tech@afeonline.com



- Supply
- Maintain
- Repair
- Certify

Membury Airfield,
Lambourn Woodlands,
Hungerford,
Berkshire RG17 7TJ

tel_ 01488 71 774
evenings_ 01488 668 484
mobile_ 07774 429 404
email_ office@southernsailplanes.com

five stars *

*WARNING: The Ventus 3 is not a toy. It may cause you to fly further, faster, in more comfort and style than ever before.

STOP PRESS 2017 ARCUST FOR SALE, AVAILABLE NOW. CALL FOR DETAILS.

We can maintain all models, from all manufacturers. To find out more or make a booking, please contact Pete Pengilly: pete@southernsailplanes.com

For more information on the new Ventus 3F, Ventus 3M, the Discus 2c FES, New Arcus or any other Schenopp-Hirth masterpiece please contact Philip Jones, phil@southernsailplanes.com



SCHENOPP-HIRTH *Performance without equal.*

SOLE UK AGENTS FOR SCHENOPP-HIRTH | GLIDER SALES, PARTS SUPPLY & SUPPORT | INSPECTIONS & ANNUAL MAINTENANCE | COMPLEX REPAIRS & INSURANCE WORK | APPROVED FOR ANY EU REGISTERED GLIDER | GLIDER COMPONENT REPAIR | SOLO ENGINE INSPECTIONS | OEHLER PROPELLER REPAIRS | EASA PART M SUBPART G APPROVED | EASA PART 145 APPROVED | CALL US FOR FURTHER DETAILS: 01488 71774