AUG/SEPT 2021

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VOL. 72 NO.4

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CONTENTS

04 BGA NEWS
06 YOUR LETTERS
08 OPINION
14 PILOT PROFILE: BENJIE AMBLER
19 AIRSPACE
20 TRIBUTE TO DICK DIXON
23 ITALIAN CHAMPION
26 GLIDING GALLERY
32 LXNAV HAWK
36 JOY TO BE FLYING
44 ADVISORY 20: CHECK FLIGHTS
64 LANDOUTS: FROM HEAVEN OR HELL
66 THE TROUBLE WITH TURBOS

CLUB

43 BOOK REVIEW
47 ATKINSON'S LAW
48 CLUB GRANTS
50 DEVELOPMENT NEWS
51 BGA UPDATE
52 CLUB GALLERY
54 CLUB NEWS
60 CLUB FOCUS: BANBURY
62 VINTAGE GLIDING
68 ACCIDENT/INCIDENT SUMMARIES
70 AAIB BULLETIN
71 OBITUARIES
71 BGA BADGES
72 CLASSIFIEDS
74 INDEX TO ADVERTISERS

FEATURES

10 THREE COUNTRIES IN ONE FLIGHT
Wales-England-Scotland-England-Wales. Never one to refuse a challenge, **Chris Gill** completes this 580km task with Chris Bowden in Denbigh's Arcus

16 RECORDS SET IN 12-HOUR FLIGHT
Herrie ten Cate talks to **Baptiste Innocent** following a record-breaking 12-hour flight in a Stemme S12, which included 80km out over the Mediterranean Sea

28 HAZARDS OF GOING GREEN
With electric cars soon to become the norm, **John Watkinson** looks at the impact of the green revolution on towing gliders

38 TRAINING MATTERS
When landing ahead after a launch failure, it doesn't matter if it's on a lake, as long as you have prepared for this before every flight. **Oystein Bjorklund** reports

MEMBER OF THE ROYAL AERO CLUB AND THE FEDERATION AERONAUTIQUE INTERNATIONALE

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AUG/SEPT 2021 VOLUME 72 No 4

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COVER STORY
Looking down the wing towards Manchester airport, en route to Scotland, via Manchester TMA and Lake District. Picture taken by Chris Bowden, flying with Chris Gill in Denbigh's Arcus in April 2021

DEADLINES
Oct/Nov 21
Articles, Letters, Club News: 5 Aug
Display advertisements: 20 Aug
Classifieds: 9 Sept

Dec 21/Jan 22
Articles, Letters, Club News: 5 Oct
Display advertisements: 21 Oct
Classifieds: 5 Nov

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› The FAI Young Aviation Artists theme for its 2021 contest was "a friendlier world with air sports". Second place in the junior category went to Milena Bak from Poland with the painting above.

› After 49 years of exhibitions in London galleries, 2021 sees the first online Annual Guild of Aviation Artists exhibition. This follows last year's cancelled event and the continuing uncertainties of the effect of the Covid pandemic on galleries and visitors to London. Nearly 300 original works of art from 94 different artists will be on display in a virtual gallery, which opens on 19 July. The exhibition will also be available to view on the Guild website with larger format images than are usually used. *www.gava.org.uk*

› Schleicher's AS 34 Me and AS 33 Es won the Innovation Award 2021 in Germany's *Aerokurier* magazine: 35.1 per cent of readers voted for its electric self-launching AS 34 Me. The AS 33 was voted into second place with 23 per cent of the votes.

› BIDFORD 2021 Regional winner is Jason Eccles of The Soaring Centre, flying an ASG 29/18m. The competition was from held from 26 June – 4 July, but the weather allowed only one flying day.

› Schempp-Hirth has announced that the 15m tips on its Ventus-3T are now certified by EASA.

› The qualifying FAI Sailplane Grand Prix at Varese, Italy, (20-26 June) made history with seven race days out of a possible seven. It was won by French pilot Gilles Navas in an ASG 29. The UK's Mike Young came ninth in his Ventus 3T. After the competition, the *Thermal Podcast* interviewed Germany's Katrin Senne, who came fourth, flying a JS3 jet. You can hear the interview at *https://thethermalpodcast*

› The 2021 Soaring to Success scheme is under way and will see more than 4,000 young individuals take part in interactive career workshops or glider taster days throughout the UK. This Air League led national project is supported by the Department for Transport and Boeing UK. It inspires, stimulates and encourages young individuals to consider a career within aviation and aerospace.

Introducing the AS 35 Mi

SCHLEICHER has announced the AS 35 Mi, a self-starting single-seater Open Class glider with the classic IAE 50 R-AA Wankel engine.

A new wing is based on the profile family of the AS 33 and the fuselage is that of the ASH 31. It has a wingspan of 20m – one metre shorter than the ASH 31 – and a MTOW of 730kg. With an 11.75m^2 wing surface, the wing load reaches 62kg/m^2, which is in line with the AS 33.

The AS 35 Mi features the new electric ballast system of the AS 33, with the water ballast openings on the top of the wing for easy refuelling. The propellor is the powerful propellor of the ASG 32 Mi. Other features are a steerable, retractable wheel, new instrument panel and efficient cockpit sealing.

Schleicher MD Ulrich Kremer said: "So far we are happy with the response to the AS 35 Mi announcement.

"The machine does 'live' from its high possible wing loading and with that we want to show that it is not necessary to have large wingspans to be competitive in the Open Class. The shorter wings have a lot of advantages compared with the large ones: better handling on the ground and in the air.

"It also means a much lower price than a 29m machine like an EB 29. Our basic price of €208.000 + VAT may, at first, sound high, but we have included features like the steerable and retractable tailwheel, and acrylic paint as standard.

"For example, compared with our ASH 31 Mi with 21m span, the AS 35 Mi is about 15 per cent more expensive. That covers the high development and certification costs."

The prototype is expected in spring 2023, with first customer delivery early 2024. An 18m version will also be available.

■ *www.alexander-schleicher.de/en/*
■ *www.zulu-glasstek.co.uk*

Advice following glue failure accident

FOLLOWING an accident involving a K-7 in Hungary linked to glue failure, the type certificate holder Alexander-Schleicher Segelflugzeugbau has published a Technical Note which recommends no spinning or cloud flying in several wood construction gliders, including the K-13. In parallel, EASA has published a Proposed Airworthiness Directive that details an inspection. Schleicher wood construction gliders operating within the BGA airworthiness system have for several years been subjected to the BGA's rigorous glue inspection programme. The BGA is developing technical guidance and reviewing elements of the gliding syllabus.



Kestrel Gliding Club flies a group of nurses in thanks for their work on the front line

NHS DAY TO THANK NURSING STAFF

ON SATURDAY 19 June, Kestrel Gliding Club hosted an event in recognition of the work undertaken by NHS staff during the Coronavirus pandemic.

Kestrel CFI Tim Graham donated monies awarded to him from his company and he, in conjunction with Dr Judith Virjee from St Richard's Hospital in Chichester, arranged for a number of nurses selected following a draw to come along for the day and experience gliding.

Everyone had a fabulous day with many taking the opportunity to do aerobics.



Brownsword Bursary for Toby Runyard, 15


Bramson Bursary for Alex Philips, 20

BURSARY TO BOOST SKILLS

DESPITE disruption to many air sports, caused by Covid-19, the Royal Aero Club Trust received almost the same number of bursary applications in 2021 as it had the previous year. With an emphasis on promoting and encouraging high-quality awards, 27 bursaries have been awarded by the trust to enable young air sport enthusiasts to advance their existing air sport qualifications.

Special bursaries were made to the following glider pilots:

- The Lord Peter Cruddas Foundation Scholarship: Joe Cornelius, 21, Welland.
- The Bramson Bursary: Alex Philips, 20, Shenington.
- The Brownsword Bursary: Toby Runyard, 15, Wyvern.
- The Sebastian Pooley Bursary: Carl Cox, 20, British Aerobatics Academy.

Other glider pilots awarded bursaries include: Jeanne Ohta, 17, Southdown; Jack Jenner-Hall, 14, Norfolk; Aidan Clark, 16, Cambridge; Timothy Shan, 15, Cambridge; and William Thomas, 17, Welland.

David Bills, the trustee responsible for the administration of the bursary scheme, commented on the high quality of many of the applications received in 2021. He stressed the important part played by the trust benefactors, without whose keen support the scheme could not operate.

Full details of the rules of the scheme, as well as details of how to become a trust benefactor or a friend, are available at ***www.royalaeroclubtrust.org***

DATES

NATIONALS, REGIONALS AND OTHERS

Club Class Nationals	Hus Bos	17-27/7/21
Worlds	Germany	CANCELLED
Open, 18m and 20m multi-seat Classes (Stendal-Borstel)		
Worlds	France	7-22/8/21
15m, Standard and Club Classes (Montluçon)		
Junior Nationals	Aston Down	21-29/8/21
18m Nationals	Lasham	21-29/8/21
20m multi-seat Nationals	Lasham	21-29/8/21
Two-seater championship	Pocklington	22-29/8/21
UK Mountain Soaring Champs	Aboyne	5-11/9/21
10th SGP World Final	St Auban, France	1-30/9/21
Glider aerobatic competitions		
Dan Smith	Dunstable	POSTPONED
Saltby Open	Saltby	POSTPONED
Nationals	TBC	15-19/9/21

INTER-SERVICES REGIONALS
24-31/7/21

HUS BOS CHALLENGE CUP
7-15/8/21

GRANSDEN REGIONALS
7-15/8/21

COTSWOLD REGIONALS
21-29/8/21

DUNSTABLE REGIONALS
21-29/8/21

INTER-CLUB LEAGUE FINALS
4-5/9/21

■ **BGA Club Development Conference, Sunday 24 October**

■ **BGA Conference, Saturday 12 February 2022 at the Belfry Hotel, Nottingham**

National champions

CONGRATULATIONS to new national champions: 15m – Andy Davis, JS3; Standard – Steve Eyles, LS8; and Open – Ian Macarthur, JS1b. The weather was not kind for the nationals, held at Lasham (26 June – 4 July). Only one day was flyable for two of the classes. The Club Class Nationals are being held at Hus Bos as this issue goes to press (17-25 July).

Rain seems to be liquid lift?

RAIN also plagued this year's Competition Enterprise, held at Borders (3-10 July). However, enterprising tasks were still set on days when most gliding competitions would have been scrubbed and, in total, 4,895km was flown. Chris Gill was crowned champion, flying an Arcus M; Bob Bromwich came second in a Ventus 3; and Mike Armstrong was third in a Ventus 2cT. The pure glider award was won by Doug Gardner. A great week despite the very poor weather.

Junior Europeans

AS WE go to press, the UK junior gliding team is performing well in the Europeans at Lithuania (11-23 July).

The team recently took part in the pre-Junior World Gliding Championships in Tabor, Czech Republic (19 May – 5 June). PMCR is the Czech National Championships held at Tabor, which is the host club for the Junior World Gliding Championships in 2022.

The team flew excellently in this practice event for the Junior Worlds and ended up with four good results, including a win for Toby Freeland in Club Class. Finn Sleigh was third in Club Class, while in the 15m Class Henry Inigo-Jones and Tom Pavis came sixth and seventh respectively.

Toby said: "We couldn't have asked for a better start to our Junior Europeans campaign. We've proven we can all work together well and race the gliders that, for all apart from Finn, we have never competed in before."

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

Nostalgia ain't what it used to be!

IN HIS tribute to Prince Philip, Roger Barrett refers to the summer of '76, and that stirred some memories. The previous summer of '75 was a dry one, followed by a dry winter and then another dry summer. The serious drought caused the BGA to put a ban on water ballast.

I had a Kestrel 19 and I see from my log book that I spent 127 hours that season wandering around the lower half of England. The only bit of green to be seen in the parched landscape was a small piece in the bottom of the dried-up reservoir at Pitsford, above Northampton.

Roger mentions cloudbases of more than 5,000ft. My log book shows them much higher; 8,000ft being quite common. Mike Clark took a wire launch in a Skylark at 6.30 in the evening at Lasham, and got Gold height over Basingstoke without entering cloud.

On one task I climbed to cloudbase over Salisbury; the next cloud on track was over Swindon and I got there at over 4,000ft. It was probably the last year when one could still legally cross airways. I particularly remember crossing Green One west of Newbury and having a 707 pass underneath me with about 1,000ft of clearance. Ah! Nostalgia just ain't what it used to be.

Roy Cross, ex-Lasham GS

AN IMPORTANT READ

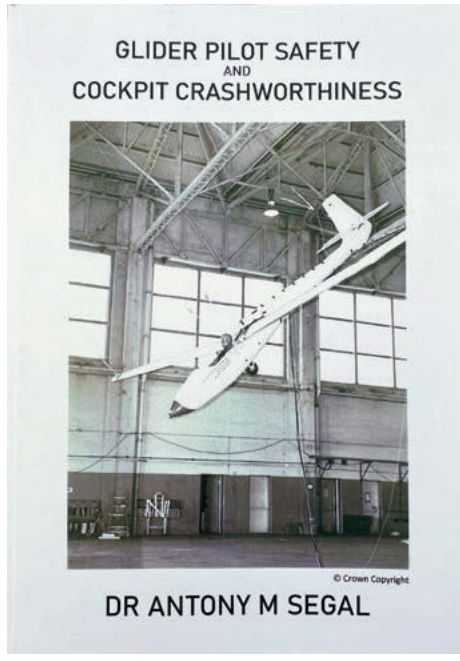
IS THERE any chance Tony Segal could be given a further word of appreciation in *S&G*, because if anyone deserves it, it's him. I read with interest, if possibly not detailed attention (I skimmed the note which said copies are free) the announcement in the June/July issue that copies of his book *Glider Pilot Safety & Cockpit Crashworthiness* were available direct from Tony (*Book review*, p61).

Not only is it a fascinating and, bluntly, an incredibly important read, it is one I made clear I would happily have paid or made a contribution for. Tony wouldn't hear of it and even covered the postage!

What a thoroughly good bloke.

Nidge Murray, Bedfordshire

The editor comments: *I'm only too pleased to oblige. Tony's excellent book is available free of charge to* S&G *readers. Email your name and postal address to:* tony.segal@btinternet.com



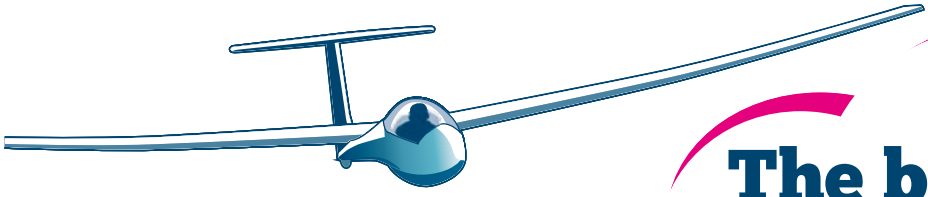
Please send letters (marked 'for publication') to the editor at *editor@ sailplaneandgliding.co.uk* or the address on p3, including your full contact details. The deadline for the next issue is 5 August

Fourth dimension

IN THE context of all the outstanding stories of derring-do from your June/July issue, here is my comment from a Minnow among the Tritons: 1,170 flights; 1,725 hrs; 140 outlandings.

Oh, ye who fly by GPS with auxiliary motors to get you home, what you miss by never experiencing this thrilling fourth dimension of the sport!

Ben Watson, BGA Vice President



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UNITED BY CHALLENGE AND FUN

Andy Perkins welcomes the weather and more freedom of movement, which has seen lots of gliding occurring. He describes how the BGA's Fit For Future programme will help develop a sustainable future

IT IS GREAT to see the weather providing, lots of gliding occurring and more movement possible across the country. This is a welcome change for all. As I write, it is mid-summer and sweltering, with 6,000ft+ cloudbases in Southern England and Soaring Spot alive all weekend with a heat map of soaring covering most parts of the British Isles.

I have mentioned previously the focus on the future and the aspiration to engage more people to join our sport. We know that instructor numbers, medicals, licensing and airspace are a few of the big threats that remain real challenges to your ability to go gliding. Through the Fit for Future programme, we are actively working to evaluate and evolve the way the BGA works to ensure that we remain relevant and able to support our clubs and all glider pilots. Ensuring a viable and vibrant sport that we can grow to be stronger and relevant by the time we reach our centenary is essential.

We all get different things from gliding, but what unites us all is the enjoyment we get from the challenge and fun of being in the air. Developing a sustainable future for British gliding is one part of the Fit for Future programme. This has been compiled, with input from many, to give us all a vision of what we are trying to achieve as a sport. Over the coming months we will describe and call on everyone to help us strengthen our sport. My hope is that this will cause discussion and encourage everyone to look at how we glide and ensure we are able and ready to engage the next generation of glider pilots. This work will encapsulate the core areas and give us direction with regard to how we take gliding forward towards our centenary.

ENSURING A VIABLE AND VIBRANT SPORT THAT WE CAN GROW TO BE STRONGER AND RELEVANT BY THE TIME WE REACH OUR CENTENARY IS ESSENTIAL

On the horizon shortly:

SPL. The CAA has decided that all pilot licensing will be subjected to a review by the CAA. As a result, the deadline to convert to an SPL will be extended to 8 December 2023. You can read more about this and other developments elsewhere in this issue.

Women's World Gliding Championships. This time next year we will be hosting the Women's Worlds. This great honour and opportunity for gliding in the UK will be upon us before we realise! The women's squad and associated team have been working incredibly hard on everything to do with this prestigious contest. If you feel able to assist in any way, please let us know via the BGA office. The opportunities starting to appear could bring huge benefits to our sport. In short, exciting times ahead.

Happy soaring and let's hope the sun keeps shining and the thermals providing...



A great sky for a course launch at AGC Wyvern



Andy Perkins
Chairman
British Gliding Association
July 2021

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THREE COUNTRIES IN ONE FLIGHT



An earlier EuroFOX flight with Chris Bowden for an approach and go round to Liverpool and Manchester Airports showed Chris Gill how quiet they were

Wales-England-Scotland-England-Wales. Never one to refuse a challenge, Chris Gill completes this 580km task with Chris Bowden in Denbigh's Arcus

ONE day I got a message from Mick Boydon, saying that now is the time to try a big out-and-return up the west coast of England, going through Manchester and Liverpool. I had just taken the EuroFOX with Chris Bowden to Liverpool Airport for an approach and go round, followed by the same thing at Manchester Airport, which was awesome fun. But it just showed how quiet they were during these strange Covid times.

Anyway, Mick suggested that I turn Carlisle or Skelling Farm, via Anfield/Old Trafford football stadiums. I'm not one to turn down a challenge, but I thought that if I was going to go for Carlisle, I may as well cross the border into Scotland first before heading for home!

I made my task, which was Lleweni Parc-Crewe East-Gretna Services-Crewe East-Lleweni Parc = 580km. A task that long is pretty straightforward in the Arcus; the only issue I envisaged was navigating airspace. All I needed was the day to give it a go!

The 16th April came along and the forecast showed enough promise. I rang my friend Chris Bowden (AKA Chrissy Wissy) and asked if he fancied being stuck in an Arcus with me for hours on end… strangely, he accepted.

The next phone call was to Manchester ATC, where I tried to negotiate clearance through their zone in advance, and also to get as much of an airspace ceiling as I could. Unfortunately, they could only allow me through their zone to a maximum of 3,500ft. Above that is Class A airspace, owned by Prestwick, which, as we all know, is airspace that gliders aren't legally allowed in. This didn't stop me trying to negotiate with them! They asked if I was able to stay above 3,500ft, which unfortunately I couldn't guarantee

for obvious reasons, so they understandably declined any possible help.

I acknowledged that I had to accept the low 3,500ft airspace and rang Manchester ATC back to say that I'll be coming through and sticking to that.

The forecast showed I would have difficulties getting from Wales across the Cheshire Gap towards Crewe and also it showed a cloudbase of 5,500ft+ through the Manchester area from early on. This sounds great, but when you can't climb anywhere near that, it makes it very difficult.

We launched a little before 11am to find good thermals (4kts) to just about 5,000ft locally. As we were climbing up, I could see that to get to Crewe we would have to cross a big blue gap, exactly as forecast. We hung round locally for a little while before we thought we should just give it a go.

Leaving the lovely conditions behind we made a glide to Wrexham, which was the obvious hotspot to go, hunting for thermals. The air was completely still and we started to get a little worried. As we did a searching turn over Wrexham, I felt a thermal start to bubble underneath so I decided to hang round for a bit, allowing the area time to heat up and pop thermals.

Cumulus popping

By this time we were already down to 2,000ft, running out of ideas. We managed to find about 0.5kt and took it to 2,500ft, before it topped out. We could now see cumulus popping much further on track, around 50km away. We decided to go for it.

We followed the obvious ground features, villages, brown fields, etc, with no luck. We were now down to around 1,000ft above sea level, 900ft-ish above ground with a good field picked. It was obvious there was thermal activity here, but we weren't high enough to go to the nearest wisp that had just formed.

I felt a little thermal and turned in it, just to stay airborne. We climbed around 100ft in the next 10 minutes before we eventually started to climb properly. Phew, up to cloudbase and cumulus on track to Crewe.

We made steady progress to the first turn with 3kt+ thermals now becoming available.

We dialled in our squawk code for Manchester ATC to see us and then turned north for Scotland! Looking north now through Manchester, the sky looked booming. After a seriously slow start, it was looking good.

We got clearance into Manchester's CTA up to 3,500ft. We consistently found good climbs, but had to leave them way below

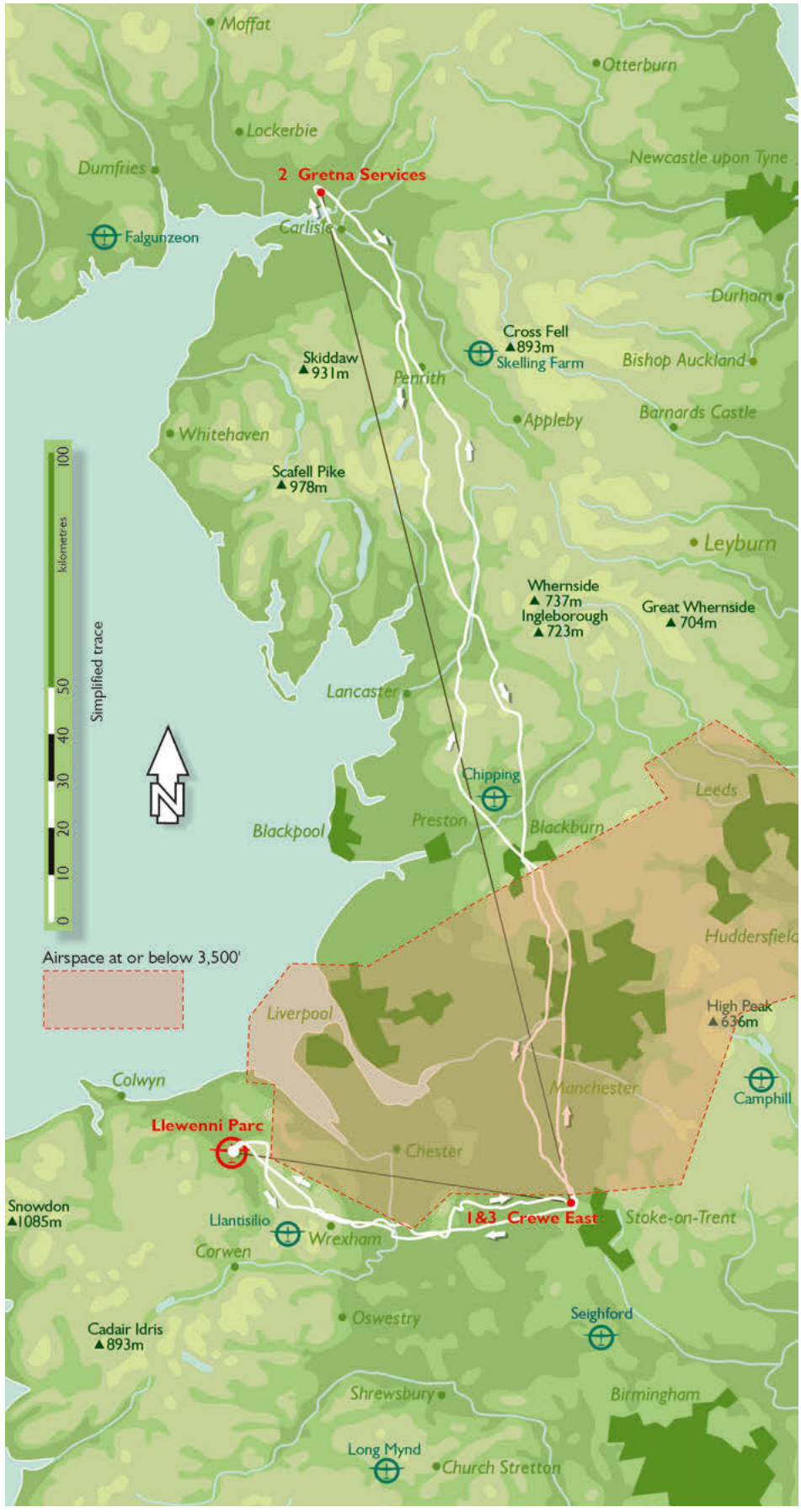


Illustration by Steve Longland

WE MANAGED TO FIND CLIMBS WHEN NEEDED AND SOME ENERGY LINES KEEPING US BUMPING ALONG WITH OUR HEADS UP AGAINST THE AIRSPACE CEILING



Right: Looking down the wing at Manchester city centre and Old Trafford somewhere down there – or so Chrissy Wissy tells me (Chris Gill)



Chris Bowden originally learnt to fly at Camphill before moving south with work. He has over 600 hours and flies his ASW 20 out of Lasham or, more recently, Denbigh when time allows. He is also the founding member of the new Chris Gill era of Denbigh Gliding.



Final gliding in a dead sky (Chris Gill)

cloudbase, keeping us disconnected from the clouds, which is tricky. We managed to find climbs when needed and some energy lines keeping us bumping along with our heads up against the airspace ceiling. We picked up a thermal on the extended centre line of its runway.

The run north through Manchester was pretty uneventful, thankfully, but we really couldn't wait to be allowed to climb higher, to allow faster progress.

We had now left Manchester's CTA and the first climb over Blackburn was 7kts… perfect! Time to let Chrissy Wissy take us up a gear and make some progress, after I had somehow kept us going till this point. Off we go and I started unleashing the banter on Chrissy Wissy every time he turned the wrong way in the thermal or turning in sink. We are like an old married couple that will argue over anything, but we wouldn't have it any other way. Chrissy was generally making good progress, but pulling at least 9G in the thermals, while I'm blacking out in the back seat. However, he seems to make the Arcus climb, so I leave him to it, whilst telling him how terrible his flying is, of course.

The clouds ahead are all looking good, but neither of us seem to find the cores. We've tried sunny side, centre, upwind and downwind sides, but it's still taking us a long time to find the good ones.

We end up missing lots of climbs and we're down to around 2,000ft, south of Calisle. At this point Chrissy Wissy is now telling me how rubbish I am, as it was now my turn to fly. So, I manage to climb us back up, with a convergence line appearing in the now gloomy sky. I then gave Chrissy Wissy back control, as even HE couldn't mess that up. We now had a 15km glide in the blue to Gretna; no problem for the mighty Arcus. Or at least we thought.

I had fired up Facebook Live and was telling the world we were now in Scotland, while Chrissy Wissy kept the progress going. This turned out to be a major jinx…

Very quickly we were down to 1,500ft in heavy sink. I had to say goodbye to our Facebook watchers and try to get a climb… and fast!

I'm feeling my way around underneath the convergence cloud way above, while Chrissy Wissy is spotting fields. This was the second low point of the flight where we were very close indeed to using the engine. I'm very determined and was not giving up and throwing away this flight.

Eventually we scratch away with a reasonable climb and start making progress southwards.

Back to Chrissy Wissy on the controls and even though the sky didn't look great he still made reasonable progress, but we were only cruising at a moderate 80-90kts (slow for the Arcus) to keep us from being too aggressive and avoiding putting us in the weeds once more.

It was now 4.20pm, in mid-April,

worrying about how much was left in the day as we now entered Manchester's CTA from the north.

By this point there was barely any sun on the ground and any cumulus was at around 6,000ft, but we were only allowed up to 3,500ft again. At this point we are now survival flying.

We approached Manchester Barton ATZ and there was a real danger of us falling into their ATZ. I called them up and explained the situation to them. I manage to find a climb on top of their ATZ (just). They were very busy, with loads of GA traffic passing underneath in the circuit, giving us lots of entertainment as we sat in a 2kt thermal, taking us back up to 3,500ft. Thanks to them for putting up with us.

We now made very slow progress south, taking every bit of lift we could. Chrissy Wissy is getting very pessimistic and keeps reminding me how we have no chance of completing the task. I thought he was probably going to be proved correct, but I'm not giving up yet.

We're now down to around 1,500ft, under an overcast sky, with no cumulus to aim for. I explained to Manchester that we are likely to use the engine to climb away, so we may need to be quiet on the radio to concentrate. "No problem," they say.

I feel a bit of lift and start turning; 1kt. That'll do. I sat in that for 15 minutes, giving us a bit more height to make more progress.

Hint taken

We then leave their zone, saying thank you very much, etc. Their reply was something along the lines of: "You're welcome, but please note we were only able to help you due to being unusually quiet."

Hint taken, I won't come and annoy you in the glider again!

It was at this point I receive a text from my girlfriend asking when we will be back, as she has just lit the BBQ!

Now, this news of a BBQ has increased Chrissy Wissy's pessimism and he suggested we use the motor and go home through this overcast, gloomy sky. We were at 2,000ft, so I was not giving up just yet! But it was only a matter of time, it seemed.

I somehow stumble into a 4kt climb to 4,500ft (the new airspace limit in this area), meaning we can now easily get round Crewe East and make a push back into Wales.

A little more sun on the ground, now on track with some cumulus ahead, I'm starting to get hopeful of getting round. Chrissy Wissy is still dreaming of the BBQ.



Above: One of the reservoirs in the Lake District (Chris Gill)

Heading back towards Wrexham, we need only 1,000ft to be on glide for home, but we have 1,500-1,800ft of ridge to clear before we can make it. So we need a higher climb.

Another little top up on the way, keeping me hopeful.

By this point at Wrexham, all the cumulus had gone, the sky was dead. I flew over the town, with no hints of any lift.

I spotted a bird soaring over a brown field being ploughed. This was the last chance as we were now below 1,000ft above ground. Chrissy Wissy is now asking what food is being cooked on the BBQ and how it would be cold by now, whilst picking sensible fields below. It was 6pm. Late for mid-April.

I feel a bit of lift and turn; 1kt. That'll do! It decreased to about 0.5kts, but we were climbing.

By some miracle, the wind in the area had gone south-easterly, meaning we were getting blown towards the airfield every turn.

I sat in this thermal for 25 minutes. We climbed to almost 4,000ft, giving us enough energy to make it home with ease! Chrissy Wissy couldn't believe it. I couldn't believe it. But we sure as hell needed to do a proper racing finish to celebrate!

Three countries in one day, starting and finishing from the same airfield. A feat that was accomplished only due to Covid and Manchester ATC being so so helpful and patient. Also, thanks Chrissy Wissy for all the banter in the cockpit. Plus, of course, Mick Boydon for the challenge – keep 'em coming!



Chris Gill originally flew from Sutton Bank. He moved to Denbigh in February 2017 to manage Denbigh Gliding and the Lleweni Parc site. Chris has over 1,200 hours. He flies a DG-1001M and offers coaching on flying Denbigh's wave/ridges and cross-country flying for inexperienced pilots. Chris is a Full Cat and Denbigh's CFI

BENJIE AMBLER

At just 18, Benjie is an instructor and tug pilot at his home club, Burn. He was sent solo on his 14th birthday and, at 15 – too young for solo cross-country – Benjie decided to try aerobatics. He became Intermediate champion in the 2018 Glider Aerobatic Nationals

Age? 18

Where were you born? Malaga, Spain (lived there for only one year).

Where do you live now? Leeds.

How and when did you start gliding?
I've always had a interest in aviation and when I was 12 years old I was bought a trial flight at Burn Gliding Club. I loved the experience and signed up as a member. During the next two years I learnt to fly gliders and went solo on my 14th birthday, back in 2016.

Whilst on a trip to Saltby Airfield I was introduced to the thrill of glider aerobatics. As I was only 15 at the time and couldn't fly solo cross-country due to my age, I decided learning aerobatics would be useful. Over the next year I progressed through the Aerobatic badges and was able to achieve a first place finish in the British Glider Aerobatic Nationals in 2018 in the Intermediate category.

Moving into 2019, I had the opportunity to train to be a basic gliding instructor. Initially I was apprehensive to see how members of the public would respond when they were told it was me taking them on their trial flight, as I was only 16 at the time. However, it was never an issue.

Over the past two years I've focused on my powered flying as well. Gliding has certainly given me a solid foundation which made the transition to powered flying smoother. I currently hold a PPL with a night rating, towing rating and tailwheel sign off. Being a tug pilot at my club is very rewarding, particularly when you position a glider in some nice lift!



An instructor at 16, Benjie Ambler was apprehensive to see how members of the public would respond to him taking them on a first flight. It was never an issue

How many other family members glide?
No one in my family flies gliders. I have taken my dad for a flight in a glider and he did enjoy it, but I don't think he has any intention of learning!

Where and what was your most memorable flying experience?
I've had so many great experiences. From a gliding point of view it was probably my first solo at 14. My best powered flying experience would be flying to Sandown, on the Isle of Wight, and spending a weekend there with my dad.

What are your favourite gliding sites in Britain?
The most exciting site I have been to has to be when I visited Denbigh back in 2018. This was my first experience of wave flying and the views round Snowdonia were fantastic. I'd definitely recommend visiting.





Of course my home club, Burn, in North Yorkshire is my favourite and I spend lots of my free time there.

How has aerobatic training benefited your gliding?

Learning aerobatics is definitely worth doing. Not only is it extremely fun, it also improves your general handling and awareness of the glider and what it is capable of.

When not gliding, what do you do for recreation?

As a season ticket holder I'm a big Leeds United fan, so enjoy watching their matches.

What is your advice to other young pilots, or anyone starting out?

Set yourself goals for each year and what you would like to achieve. By having a goal you can then make a plan of how you are going to accomplish this. For young pilots there are loads of financial bursaries available. Whilst I was learning to glide I applied and was successful in receiving two different bursaries. This certainly helped speed up my progress, as it allowed me to fly on a more regular basis.

Above left: Aerobatic national champion at just 16

Above: In addition to his gliding, Benjie has focused on powered flight and is a tug pilot at Burn GC

■ **Is there someone you would like to nominate to appear in *S&G*'s pilot profile? Send your nominations to *editor@sailplaneandgliding.co.uk* detailing why you have nominated them.**

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RECORDS SET IN 12-HOUR FLIGHT

Herrie ten Cate talks to Baptiste Innocent following a record-breaking 12-hour flight in a Stemme S12, which included 80km out over the Mediterranean Sea

IN MARCH, French pilots Baptiste Innocent and Gil Souviron broke two European Open Class records in Gil's Stemme S12 – a 25-metre Open Class motorglider.

The two new records are:

- A declared three turnpoint distance of 1,660km.
- A free distance using up to three turnpoints of 1,702km.

Now, pull out an atlas and have a look at the French-Spanish border. It basically runs east-west, with the Pyrenees straddling the two nations.

Using a remote start/finish, the pair used wave and flew two out-and-return legs from the Mediterranean, along the Pyrenees and back again. On the final leg of the flight, they actually flew 80km out over the Mediterranean Sea.

I spoke to Baptiste Innocent from his home in Paris.

HtC: ***Congratulations on this fabulous accomplishment. What a great flight.***
BI: Thank you, it was actually a great, great flight that I'm glad to share with Gil.



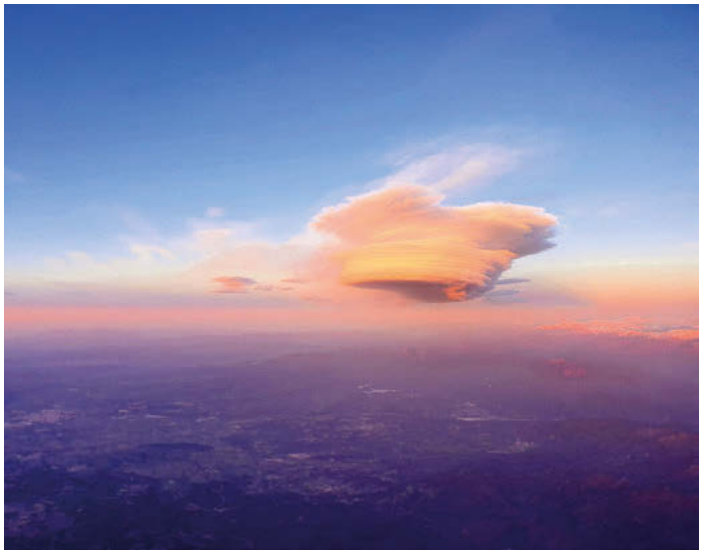
Below: Baptiste Innocent and Gil Souviron (inset photo) broke two Open Class records in Gil's Stemme S12 on 21 March

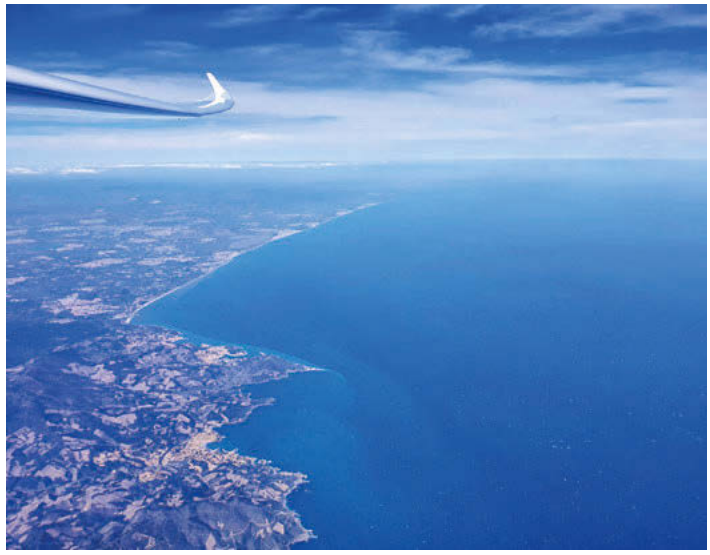
HtC: ***The night before the flight, you guys must have been terribly excited.***
BI: At 8pm we met in Perpignan and the next morning, we were taking off. I think the shorter the time you have to prepare the flight, the better you choose, because you don't take too much time to think whether one waypoint should be 10km more to the north or not. Just choose three points and go.

HtC: ***What was the planned task for this record-breaking flight… what are you thinking that you're going to accomplish?***
BI: The task set was 1,600km, three points. The start point is south of Perpignan on the border between France and Spain. We decided to do two out-and-return legs of 800km, almost the same point twice. First point was north of Pamplona, Spain; second point was in the Mediterranean, close to the start point; and third point, again, north-east of Pamplona and then back. The turn point to the west, the wave usually stops 80km before Pampalona, so the main thing is to glide almost 150km from the last wave point to north of Pamplona and back. That's the trick to go more than 1,400km.

HtC: ***And how did it work out… how were the conditions?***
BI: After take-off, we headed to the south. The first mountain is close and is called the Albères. It's a really small mountain; the peak is at 1,256m (4,120ft), but the wave here is usually excellent. We took five metres per second up to 6,000m (19,685ft). Then we had a look to the west and saw very beautiful lenticular and rotor clouds. Usually, when the wind is north, the sky is pretty clear and there is no rotor or lenticular, but that day everything was marked so the weather seemed to be better than expected. We were happy because a half an hour after take-off you can see that the weather is going to be really good, so that's a good way for us to start.

HtC: ***And there was enough moisture to mark some of the clouds?***





BI: There was enough moisture, but not too much because when there's too much moisture you can't see the holes and you're not really sure what cloud is really a rotor. That day, everything was pretty obvious once airborne.

HtC: ***So, you take off, get to altitude, turn off the motor and you get your first big climb. How was it working after that?***
BI: After that we didn't have any trouble. On the first leg, the wind was north-east 040 degrees and so the first leg to the west is with a tailwind. If you make a little mistake, it won't have any consequences because you're going fast to the west. And the advantage of this is your first leg is marked for the three others, because we're flying the same leg four times. So, the first leg to the west is really important because you see what it's like for the three other legs. It won't be exactly the same track, of course, but you have a good idea of where the difficult points are.

HtC: ***What altitude were you at, and was everything coming together?***
BI: It was much better than expected. We were on the southern part of the Pyrenees, where all the flight is made with the Spanish air control. Whichever attitude we asked for, almost every time we got it. We asked for flight level 195 because it's normally maximum VFR altitude, and the climbs up to 195 were always very good – at least two metres per second, even three, or four sometimes. So, in the first leg to the west we didn't encounter any difficulty. The last part of the leg, you need to glide 80km one way and 80km back without any wave just to reach the first turnpoint. That time we asked for flight level 225 and we got it, so from FL 225 to glide 150km we lost only 3,000m.

HtC: ***And you're in an Open Class glider, right – you've got a 25-metre wingspan?***
BI: Yes, 25 metres, and I think the performance of the Stemme S12 is similar to that of an Arcus.

HtC: ***OK, so you're not too worried.***
BI: The glide ratio is about 50 to 52. So, we had almost the glide ratio of the glider during those 150km. We came back into the wave and that was the biggest difficulty of the flight; the first 150km glide would be the longest we will need to do during the whole flight. With that difficulty passed, it was really good and the average speed was about 150km per hour (93mph). That was really much better than expected. Much better.

HtC: ***It took you something like 12 hours, if I'm correct?***
BI: Exactly, it was 12 hours and we actually finished the task one hour and 30 minutes before sunset, so we were ahead of schedule.

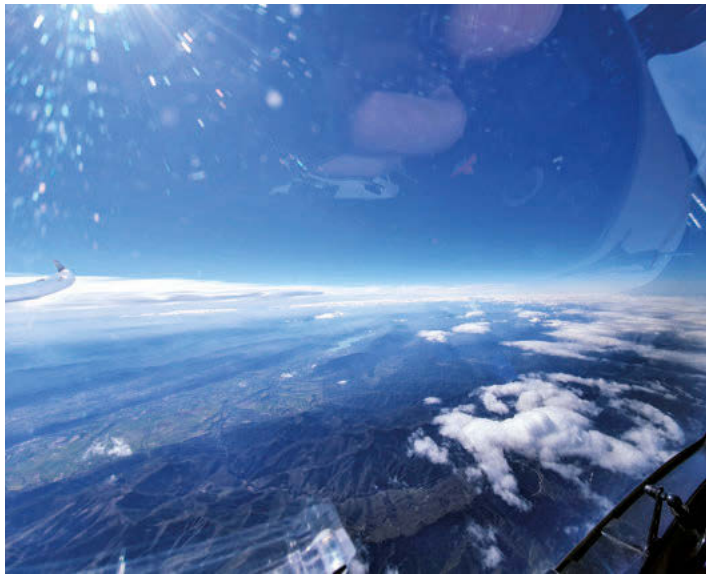
HtC: ***Were you prepared to spend that long in the cockpit? It's a very long time… five hours, six hours, seven hours, maybe, but 12 hours in the cockpit without moving around is a long time. Were you guys mentally prepared for that?***

Above left: lenticular cloud 100km to the west, viewed from the first climb 45 minutes after take-off, sunrise

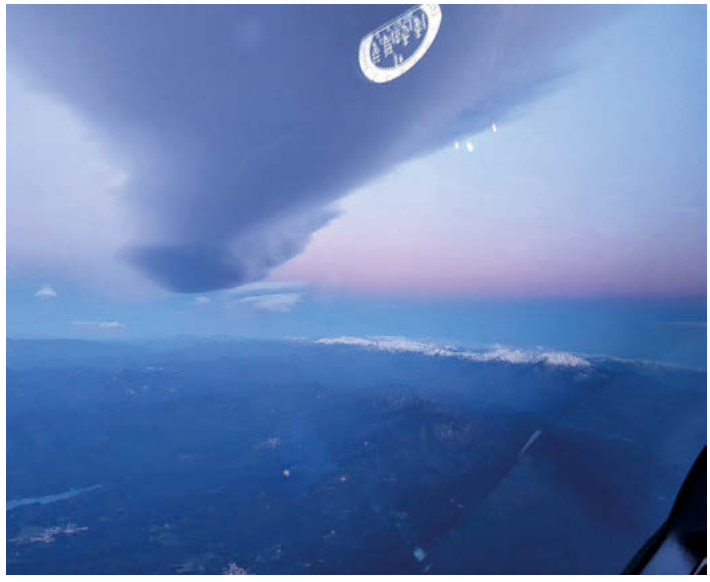
Above right: eastbound to the second turnpoint, the Côte Vermeille (famous French village of Collioure)



A look at the instrument panel of the Stemme S12 shows an altitude of 7060m just before the last run over the sea
(All photographs by Baptiste Innocent)



Arriving close to Pamplona westbound, Jaca plains



Lenticular cloud over the Albères after take-off, sun still below horizon

■ For more about this remarkable flight, visit: *www.onlinecontest.org/olc-3.0/gliding/flightinfo.html?dsId=8275568*

■ In another recent flight, Baptiste and Gil crossed the sea from the Alps to South Corsica, then to Italy, and finally back to the Alps... See: *https://www.onlinecontest.org/olc-3.0/gliding/flightinfo.html?dsId=8381239*

■ This interview was part of The Thermal's May podcast. This monthly podcast is devoted to gliding. You'll hear about the latest cutting-edge sailplanes and technology. Plus gliding safety, instructing, gliding history, pilot interviews, towing, winching and a whole lot more. New podcasts will be released the first Saturday of every month. You can listen to past and upcoming podcasts at: *http://thethermalpodcast.libsyn.com*

BI: You know that you want to do that flight so, mentally, yes you're ready to do a 12, 14, 15-hour flight. The most important thing that I think to last 12 hours or 14 hours is the gear you have: good jacket, gloves, shoes and overshoes over boots. I have warming insoles and warming gloves. Gear is very, very important as you can freeze in a short time. If you're not well prepared, then you're not well equipped. That's another part of the preparation for a long flight.

HtC: ***How did you and Gil share the responsibilities in the cockpit, how did that work out?***

BI: I would say that it's quite natural. Gil knows the Pyrennes very well, as he's been flying in those mountains for a long time – first as a hang glider pilot and then as a glider pilot. He knows every rock by its own name. After that I would say that we almost agree on every decision, except one or two, but those are not dramatic, so no dramatic consequences. I think we've shared six or seven flights together. We didn't make lots of mistakes by choosing one option over another. So for timing, we agree on almost everything.

HtC: ***Now, I read that a part of this flight was also a considerable distance over water – something like 80km?***

BI: Yes, that's the crazy part of the flight. When we came back on our last leg, the finish point was almost the start point. So, at the shore on the Mediterranean Sea, if we wanted to increase the record mark we needed to go to the east, to extend the last leg. Gil had a wonderful idea to ask Spanish control for permission to climb to FL 245. And the air control told us: "OK, no traffic report, climb to FL 245 and call Marseille." That was crazy so we climbed to FL 245 with an average of two metres per second. Then we had to fly east, and we switched with Marseille control and told him "We've been cleared to FL 245 by Spanish control, but in France we would maybe only get FL 195. Do you want us to go down with the airbrakes?" He told us: "No problem, you're alone. We have no traffic, stay tuned." That was just amazing. We were alone in the world. Over the sea. That was crazy, but the sun was behind us, it was 6pm and the temperature was minus 35 degrees. I was freezing cold, but it's magic. I don't know if you can imagine such a moment, it's just amazing.

HtC: ***What's next on your list of flight goals?***

BI: Actually, there are lots. I still hide my magical 'garden' to keep it secret. But one goal is the FAI 1,250km triangle in a mix of wave and thermals in the Pyrenees and north of Lyon – that's a possibility. We might try with the Stemme S12. We may try a goal distance from France to Morocco, for example, as done in 1992, a record that has not been broken since. We'll try that one for sure. There's a possibility of 1,700km, or maybe 2,000km in a straight line.

HtC: ***Baptiste, it's been lovely speaking to you, and I must congratulate you again on this fabulous flight that you did with Gil.***

BI: Thank you, Herrie, I appreciate the interview.

SHARED SKIES

Pete Stratten looks at the impact of UK airspace changes

UK AIRSPACE is changing, and many argue change is long overdue. The UK's Airspace Modernisation Strategy (AMS) is owned by the CAA and its primary ambition is to improve the efficiency of commercial air transport operations and build capacity for the future.

After an inauspicious start, the AMS is being updated to take into consideration lower airspace, ie below 7,000ft, including the complexities of a variety of airports and Air Navigation Service Providers (ANSPs) all doing their own thing in respect of controlled airspace. A co-ordinating organisation supported by NATS is in place to ensure that all airports develop their own airspace changes in alignment with the AMS. The law is currently being changed to provide the Government with the powers to require airspace changes.

To quote the Government: "Drones have the potential to significantly change the use of UK airspace… there could be over 76,000 commercial drones in UK skies by 2030, with more than a third utilised in the public sector… the Government's industrial strategy has set out the ambition to cement the UK's status as the leading location for technology companies and drones will form an important part of this strategy." In other words, drones are here to stay and must be an important consideration when developing an airspace strategy.

The CAA's ambition is to integrate drone operations into the same airspace with everyone else. This should minimise the need for segregated airspace for them and thus remove one of the pressures for additional controlled airspace volumes. Achievement of the ambition is dependent on electronic conspicuity (EC) devices and related infrastructure systems, which are likely to take several years to evolve and implement but will result in change for most of us. In the meantime, we can expect to see continued use of Temporary Danger Areas to protect drone operations until, with EC, they become unnecessary.

What does this mean for gliding? Gliding should continue to expect equitable access to airspace. But that situation is not a given. We need to work at it. The BGA continues to expend significant and increasing effort on airspace matters, including in engaging with AMS activity. Successful airspace modernisation should result in airliners climbing and descending steeper and operating higher. The technology involved provides very accurate navigation and facilitates reduced separation. Modern communications support flexible use airspace. Electronic conspicuity supports effective lookout, overall situational awareness and easier access to controlled airspace.

Working with others, the BGA is making the case that truly modernised airspace must utilise all the tools available to minimise the amount of controlled airspace going forward. With tens of significant airspace change proposals in the pipeline, we regularly press the point that the CAA must urgently establish the new standards, policies and tools that airspace change sponsors (airport operators, mostly) can then deploy to start the migration to modernised airspace which is better for everyone. Working with the General Aviation Alliance, the BGA is engaging with the drone industry to establish mutual understanding. This is particularly important as the drone industry, feeding off Government funding, is still emerging from its 'wild west' phase and has demonstrated limited knowledge about the operating environment.

As pilots, how can we contribute? Most important of all, it is the responsibility of all pilots to understand and comply with the applicable airspace rules. Equipping with a GPS moving map and electronic conspicuity, being reasonably confident to use the radio when necessary and being aware of who is likely to be doing what in the airspace that we intend to fly through all help to minimise risk. And when we are asked to contribute, including through adding our own views to a consultation, we should think about the vital importance of continued access to airspace and then do our bit to help.

■ See *https://www.caa.co.uk/General-aviation/Safety-information/The-Skyway-Code/*
■ Funding is available. See *https://www.caa.co.uk/General-aviation/Aircraft-ownership-and-maintenance/Electronic-Conspicuity-devices/*
■ Training is available. See *https://members.gliding.co.uk/pilot-licensing/radio-licensing/*



Amazon is just one company building and testing commercial drones that will share airspace

GLIDING SHOULD CONTINUE TO EXPECT EQUITABLE ACCESS TO AIRSPACE. BUT THAT SITUATION IS NOT A GIVEN. WE NEED TO WORK AT IT

DICK DIXON

In a tribute to the late Dick Dixon, we reproduce an interview Chris Basham conducted for BWND's *Glide Angle* in 2016



Dick with wife, Mary, at an AGM

MOST of us will already know that BWND's safety officer Dick Dixon has just completed his five (yes five!) thousand hours in gliders. I thought this was too good to miss as a topic for *Glide Angle*, so nobbled him in the back of the clubhouse and got him to answer some questions about his outstanding career.

CB: ***Dick, have you managed to fit anything else into your life apart from gliding – a career, for instance?***

DD: On leaving school, I started work with the Royal Insurance Company in Whitehall in London, but was soon called up to do my National Service in the army. After basic training, I became, variously, a drill instructor training recruits and a weapons instructor. I was then sent on an eight-week driving course, passed my driving test in a three-tonner on the last Friday of the course, and was appointed an HGV driving instructor on the following Monday! So it was a busy and enjoyable couple of years, and a great experience for a teenager just setting out on life's journey.

After National Service I joined Sun Alliance as a trainee at Oxford, where I met Mary. Soon after we got married, we bought a Lotus Super 7 kit and assembled the car in my mother-in-law's garage. There was no 70mph speed limit in those days! We were also keen on walking and fishing and enjoyed exploring the rivers and lakes around the Oxford area.

Having passed my insurance exams, Sun Alliance moved me to Grimsby as a "rep". We added a son and a daughter to our family whilst we were living in Grimsby and I was working hard at my job. This entailed long days drumming up new business, carrying out surveys of industrial premises, farms and shops, and negotiating claims settlements with solicitors and policyholders – not to mention evening work arranging life assurance cover for, mainly, building society borrowers.

I was then moved to York as local manager. It was there that we bought a house near to Pocklington airfield, and we both had our first flights in a glider at what was then the Leeds Gliding Club. Over the years, as I edged up the "corporate ladder", my employers moved me around the country, and we joined the local gliding clubs – Husbands Bosworth, when I was moved to Birmingham, South Wales (Usk) on promotion as sales manager at Cardiff, and Southdown (Parham) on a subsequent move to work in Croydon. I eventually ended up as regional manager in the West End of London, retiring in 1996.

After our daughter moved to live in Templecombe we also decided to move out west from Surrey, and this was when we joined The Park, nine years ago.

CB: ***What got you started with gliding and where did you start?***

DD: In 1970 I was chatting to a colleague in a pub in York, and mentioned that I had seen gliders on the old RAF airfield at Pocklington. He must have recognised a spark of interest, and suggested I go along and have a trial flight. I hadn't realised you could do this, so Mary and I called in at the airfield on spec and we both had a winch launch in a T-31 (open cockpit, struts, and plenty of drag!). I started off in the right way by having a cable break at 300ft! We both enjoyed our flights, so decided to join the club, and I paid our six month's membership fees of £6.50 each. (six pounds ten shillings). In those days the club at Pocklington was very small. There were only six instructors, so they were keen to expand the instructor team. I was sent on a BGA instructors' course when I had only 28 hours P1 and 40 hours in all, so I experienced a pretty steep learning curve.

CB: ***What did you train on?***

DD: As mentioned, I started on Slingsby T-31s. I see from my first log book that my first 50 launches (all winch) were in the T-31 and averaged exactly three minutes a flight. I soloed in the T-31 on my 70th launch. My introduction to soaring was at Compton Abbas where we went on a holiday course in the seventies. In those days you also had to dodge the parachutists!

MARY AND I CALLED IN AT THE AIRFIELD ON SPEC AND WE BOTH HAD A WINCH LAUNCH IN A T-31

CB: ***What was your first glider?***
DD: The first glider in which I had a share was a K-13, at Husbands Bosworth. Mary and I had a one-eighth share each. It was good fun, especially as I was the only instructor in the syndicate, so I got to do a good deal of flying in it. Bizarrely, I did my second ever cross-country flight as P1 in the K-13 – a 103km declared triangle with Norman James as P2.

CB: ***Which is the one you will always remember and why?***
DD: That's a difficult one! I have flown over a hundred types of glider and had some great adventures around the world. But I think the answer has to be my LS6c18, "DD". I did well over 70,000km in that glider. It was easy to fly with beautifully coordinated controls and very high performance – and Mary and I could rig and de-rig it on our own. This was a great advantage on the occasions I landed out! Perhaps I should add to that the Duo "DD3", another excellent glider, in which I have had a great deal of enjoyment over the last couple of seasons' flying with so many fellow club members!

CB: ***Can you tell us about your work with the BGA?***
DD: I first became involved with the BGA whilst I was CFI at Southdown Gliding Club in 1985. During that time I trained with Chris Rollings and Bernie Morris, respectively national coach and chairman of the instructors' committee, to become, firstly, an AEI coach (now basic instructor coach) and then, in 1990, a regional examiner. When Bernie retired the following year, I was appointed chairman of the instructors' committee.

In 1995 I was elected vice chairman of the BGA and the following year, on the retirement of Air Vice-Marshal Don Spottiswood, I was elected chairman of the BGA. I did this for four years until 2000, when I gave up the chair and was elected a vice president. Currently I am a trustee of the Philip Wills Memorial Fund and the Planning and Environmental Fund. I am also president of Southdown Gliding Club.

CB: ***What is your role as safety officer in the club and anything you would like to say in that capacity?***
DD: The club safety officer is appointed by the chairman and works closely with the chairman and the CFI. The role is to help to promote an effective safety culture in the club. This means encouraging all pilots to be interested in improving safety at all times, and in the interests of everybody. To this end, I try to contribute a topical safety item to each issue of *Glide Angle*. I also liaise regularly with the chairman and CFI on all aspects of safety, and we hold a periodic safety committee meeting to discuss specific safety issues.

I have to investigate accidents and incidents occurring at the club and to aircraft flying from The Park, and report my findings at club level or, in the case of the more serious occurrences, to the BGA. If appropriate, information has to be circulated within the club in order to avoid similar happenings in future. I have to carry out periodic thorough safety audits in a format laid down by the BGA, and these are retained at the club, in the red safety folder in the clubhouse, and at the BGA, until updated.

CB: ***Thank you, Dick. Congratulations on your 5,000 hours and thanks again for giving me a go in DD3 when we flew over the Steam Fair at Blandford, over to Ringwood, then up my own stamping ground along the A338, culminating in an aerial inspection of Salisbury from 5,000ft amsl before final gliding home.***

We must be a lucky club to have such illustrious and fascinating members.



Dick Dixon with Astir after chalking up his 5,000 hours (Nigel Warren)

I HAVE FLOWN OVER A HUNDRED TYPES OF GLIDER AND HAD SOME GREAT ADVENTURES AROUND THE WORLD

■ TURN TO NEXT PAGE FOR A TRIBUTE TO DICK FROM SOUTHDOWN GLIDING CLUB

ENTHUSIASM TO SHARE PASSION

A tribute from Southdown Gliding Club's chairman Craig Lowrie

DICK joined Southdown about the same time as I did in the early eighties after spells at the Wolds Gliding Club and also at Usk, when his job brought him to the south east as he became responsible for the southern sales arm of Sun Alliance.

He quickly adapted to flying at Southdown and approached me when he was asked to be the club CFI. Dick agreed to take on the role on the condition that I would become deputy CFI at the same time. We worked together over almost three years, introducing the concept of a 'basic' instructor rating which became a national standard and which remains in place to this day.



Dick Dixon is presented with a BGA Gold Medal by Peter Harvey (Paul Morrison)

ENTHUSIASM FOR THE SPORT RUBBED OFF ON THE CLUB AS A WHOLE

Dick and myself ran the Tuesday Evening course for several years and helped to train many club members, many of whom still fly with us today. I experienced Dick's total enthusiasm for the sport, which rubbed off on the club as a whole.

He was also an excellent cross-country pilot, for many years flying his Astir CS '511' all over the South of England and just missing his Diamond distance after a flight of about 485km. At that point he accepted defeat and bought his beautiful LS6c18w 'DD'. Dick flew his Diamond distance in that and was to be seen flying all over the South of England on most weekends.

Dick became very skilled flying the Southdown hills and produced an excellent booklet which explained the challenges and solutions and is still available today from the club office.

He was central to establishing the 'introduction to gliding' one-day courses at Southdown that were so popular. Dick ran a number of these himself and received great reviews from all that were lucky enough to fly with him, such was his enthusiasm.

With his business background and his instructing and gliding experience, it was inevitable that Dick would take the helm at Southdown at some point and he led the club as its chairman until about 2006, when he passed the reins to me.

About this time, Dick and his inseparable wife Mary made the very difficult choice to leave Southdown to be closer to family. He really was torn in making this decision as he had a real attachment to Southdown and has always seen it as his firm 'favourite club'. Dick was still the club president at the time of his death.

Once he moved to Wiltshire it didn't take very long for Dick to find the local gliding club and he became an enthusiastic member at the Bath, Wilts & North Dorset Gliding Club at The Park.

Dick had the honour of becoming the chairman of the British Gliding Association. With his wife Mary, he put a huge amount of effort into visiting clubs throughout the UK to learn about the issues at club level and then to drive the BGA to help provide solutions to these.

Motor glider

As he got older, he found rigging his LS6 much harder and, whilst many people would have given up gliding, Dick took a different approach and obtained the necessary ratings to fly a motor glider. He bought a share in a Grob 109b and then set about trying to fly to as many airfields in the UK that he could, accompanied by his lovely wife, Mary. Dick used to visit Parham once or twice every year and also to attend the club AGM as club president, where he would present the trophies with enthusiasm. He would always go out of his way to thank the committee for their great work.

I last spoke to Dick just a few weeks before his death on one of his frequent calls where he wanted to understand how things were going in 'his club'. During that call he shared with me his likely decision to hang up his flying cap… a decision that he found very hard, but one that he wanted to make himself. Another example, if one is needed, of his sound, objective and non-selfish decision making that he demonstrated though his lifetime.

Although not flying at Southdown for some time now, many members will join me in passing our respects to a member that gave so much and will be sorely missed. Dick… fly high my friend and I will treasure the fond memories of your time with us on the field of dreams that is Southdown.

ALEX BUSCA

Andrea Venturini talks to one of Italy's top pilots about his love of long-distance flights and gliding ambitions

ALEX BUSCA is at the forefront of soaring activities at my club in Aosta and is definitely someone worth bringing to your attention. First of all I ought to say that, coming from warm Tuscany, I am way too extrovert for this reserved pilot from Valle d'Aosta, the smallest region in the furthest north-west corner of Italy. But I got my lucky shot when I flew with him once, not in a glider but in the helicopter that he takes, every day for work, up on the highest peaks of the Western Alps. His extraordinary skills are obvious right away.

At first Alex was somewhat reluctant about being interviewed, but in the end I convinced him that he shouldn't keep all that knowledge to himself and that the whole world would appreciate his stories. It turned out to be a real pleasure listening to the many accomplishments Alex has fulfilled in his personal life, as well as a career pilot.

His soaring adventures started with paragliding in 1985/6 when he was about 17 years old, then he moved to hang gliding for more than 15 years. Alex won the Italian championship and, ultimately, ended up being on the podium at the World Cup in Australia.

In 1998 he started gliding in Aosta and later, around 2003, fell in love with distance soaring. Abandoning hang gliding, Alex focused more and more on performance soaring, achieving new targets and often flying well into France or towards the Dolomites. He won Club Class Distance Italian Championships in 2014, 2015 and 2016. In 2017, 2018 and 2020 Alex was

The Matterhorn (Andrea Venturini)



Approaching the Mont Blanc massif from the south-east (Alex Busca)



Italian champion Alex Busca (Andrea Venturini)

■ Since I started writing this article, Alex has performed several long distance flights well over 1,000km, and one unique triangle of over 300km with the club's K-21!

This year, Alex, together with Mauro Lorenzoni, Max Milano and the Aosta Gliding Club, will be offering a handful of pilots a very select training for "Secondo e Terzo Livello". This means not only the usual "second level" for pilots who want to get out of the comfort zone of the club's gliding range, but a "third level" for pilots who aspire to soar long distances and maybe reach Austria, or fly deep into France. The unique feature of this initiative will be the fact that the training will take place during the whole season of 2021, instead of being concentrated into a week, allowing pilots to experience thermals, wave and ridge flying. Basically, it will cover everything pilots would like to experience and to master all forms of soaring.

Open Class champion. He likes the idea that with such long distances you will experience totally different types of air mass with consequent totally different weather scenario within the day (not possible with hang gliding or paragliding.)

I first met Alex in 2016. He was assembling his new Ventus that had just arrived with another accomplished pilot from Aosta and with whom he shares this great machine. I will tell you more about that interesting encounter (and how I fell in love with this site) in another story. It was a morning I will never forget, resulting in an amazing flight over Mont Blanc and me becoming a full member and tow pilot four years later.

My first memory is vivid. Alex seemed reserved, a kind of mythical character since he could show up at the club and take off at 6am, returning 14 hours later. He really enjoys this region and spends most of his time in the air, flying a helicopter from Aosta Airport. One of the funny stories I heard in the airport is how Alex can benefit from using his soaring skills while flying a rotary wing plane. Using all lift close to the ridges, his flights always end up saving the company a lot of fuel by the end of the year!

I have been inspired to write about Alex since the beginning, seeing him as some sort of flying guru. He reminds me of John Williams from Portmoak, another great pilot I met in Scotland. As soon as we met, I hoped right away to one day soar with him on the ridges, thinking I might be lucky enough to absorb some of his skills like a sponge.

Since distance flying is what Alex likes most, I asked him to tell us about a flight that is special to him.

The longest flight for Alex was in 2019, and was done unexpectedly at the end of October when days were much shorter, with colder temperatures, and therefore a good result was almost impossible to predict. Alex said: "That day was a wave day and at 12 noon I had done just 300km. Only by pushing further was I able to soar until almost dark, unexpectedly adding 1,000km!"

Great flight

His goals now are a 750km or 1,000km triangle, and trying to reach Lienz in Austria. "If you want to achieve a great flight you have to be prepared to be at the airport as early as 5am!" he said.

Alex is a conscientious pilot, who knows every valley like the palm of his hand and therefore the margin of safety in his flights is always very high. His love for the region goes beyond flying; mountain climbing is something he also enjoys. He told me that once, during a flight, he got attacked by a large bird of prey. After the impact, he saw the bird falling on a ridge and took notice of the spot. He then landed and took a long hike to make sure he could find and try



Val Veny, a lateral valley of the Mont Blanc massif, lying to the south-west of Courmayeur (Alex Busca)

to save the poor bird. Unfortunately, the impact was at high speed and the bird did not survive, but I could really tell his sorrow about the experience.

Alex enjoys Aosta as a site, because it's a closed bowl, lacking easy in and out access. However, once you know the area well, it becomes amazingly easy to get away and offers soaring potential that is very hard to match. Here you can truly experience the very best of every type of soaring: wave, ridge and thermals the whole year long. In Aosta the only time you don't fly is when it rains.

Other soaring sites may have these amazing conditions, but they are usually limited to one season and not all year around. Alex also pointed out the potential of the site for height gains; nowadays not as sought after as previously, because pilots are focusing more on long distances. Aosta, which is mainly in Class G space, offers a 5,000m height gain (16,000ft), which is becoming harder and harder to achieve when you take off in controlled airspace.

Alex points out that many pilots are better than he is when competing in a group race type of competition. But distance flying is a quite a different thing, you are alone and there are many similarities to climbing (and how many other people can say they have climbed three 26,000ft peaks, including Mount Everest… all without oxygen?). You can clearly see these analogies with the climbing world: taking on challenges, perseverance, powerful/astute thinking and …great skills.

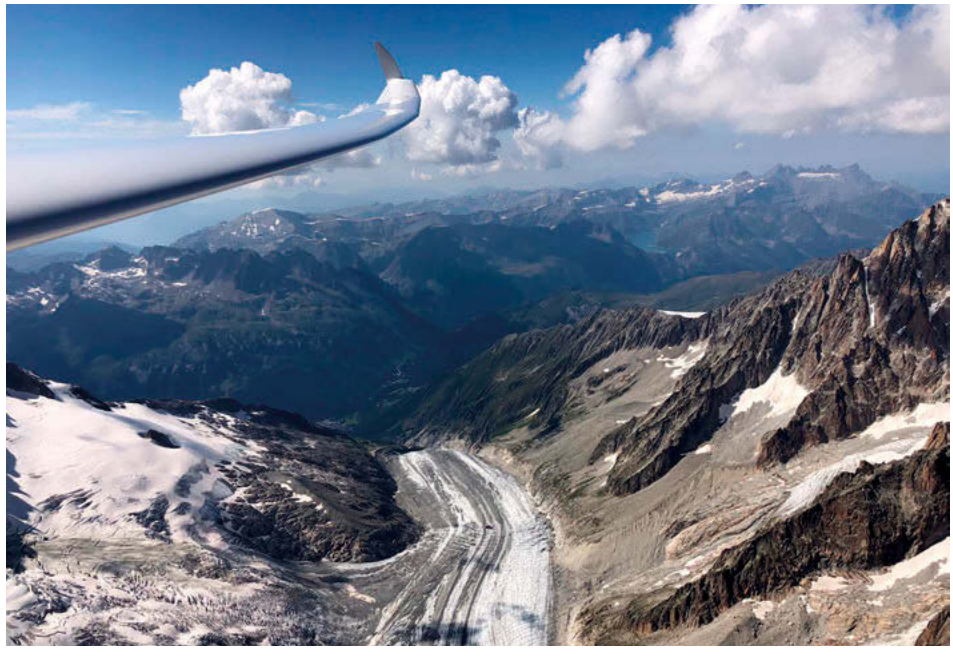
When asked what his next challenge is, Alex replied: "The next thing on my wish list is to explore the Oberland in Northern Switzerland and more east towards Slovenia. To explore new places, all reached taking off from Aosta. Maybe after retirement I will have more time!"

■ Alex opened the Italian series of webinars 'Secrets of Champions', which has been reported on in the April/May and June/July issues.

Other Italian champions, such as Brigliadori, Galetto and Sironi, have featured in these webinars, thanks to Pier Fassina and Enemonzo, the gliding club of the north east.

More than half of all Italian pilots were glued to Zoom almost till midnight every week watching videos and graphs featuring the champions' epic flights throughout the breathtaking Italian Alps.

A few weeks later it seemed that pilots came out of hibernation and started competing with each other, scoring record after record and trying to climb at the top of OLC rankings. I am sure the webinars did play a part in this "revitalisation". The initiative was a real success and inspired me to share abroad our accomplished pilots' lessons since often, due to the barrier with the English language, they do not gain the international recognition deserved.



The Mer de Glace is a valley glacier on the northern slopes of the Mont Blanc massif (Alex Busca)



This page from top:

On 6 April 2021 Paul Fritche flew through this snow blizzard and landed just as it passed through Lasham

Dave Spencer prepares to fly his LS4b G-CJKP from Derby & Lancs at Camphill on 26 April 2021 (Bob Carlisle)

Facing page, clockwise from top left:
Summer wave: reading about waves to the sound of waves on Agios Gordios Beach, Corfu (Thanos Giankou)

Adrian Docherty took this photograph on 23 March 2021, after he had landed at Portmoak following his first wave flight of the year

On 9 May, Steve Lynn flew with Mark Burton in his Arcus into mid-Wales. With a lowering cloudbase, the only way into the turn was with a cloud climb (Steve Lynn)

Golf Charlie Delta spotted over the Cairngorms in this photograph taken by hill walker Stuart McAleese. Bill Anderson was soaring the ridges between Loch Eanaich and Cairn Gorm on 11 April 2021

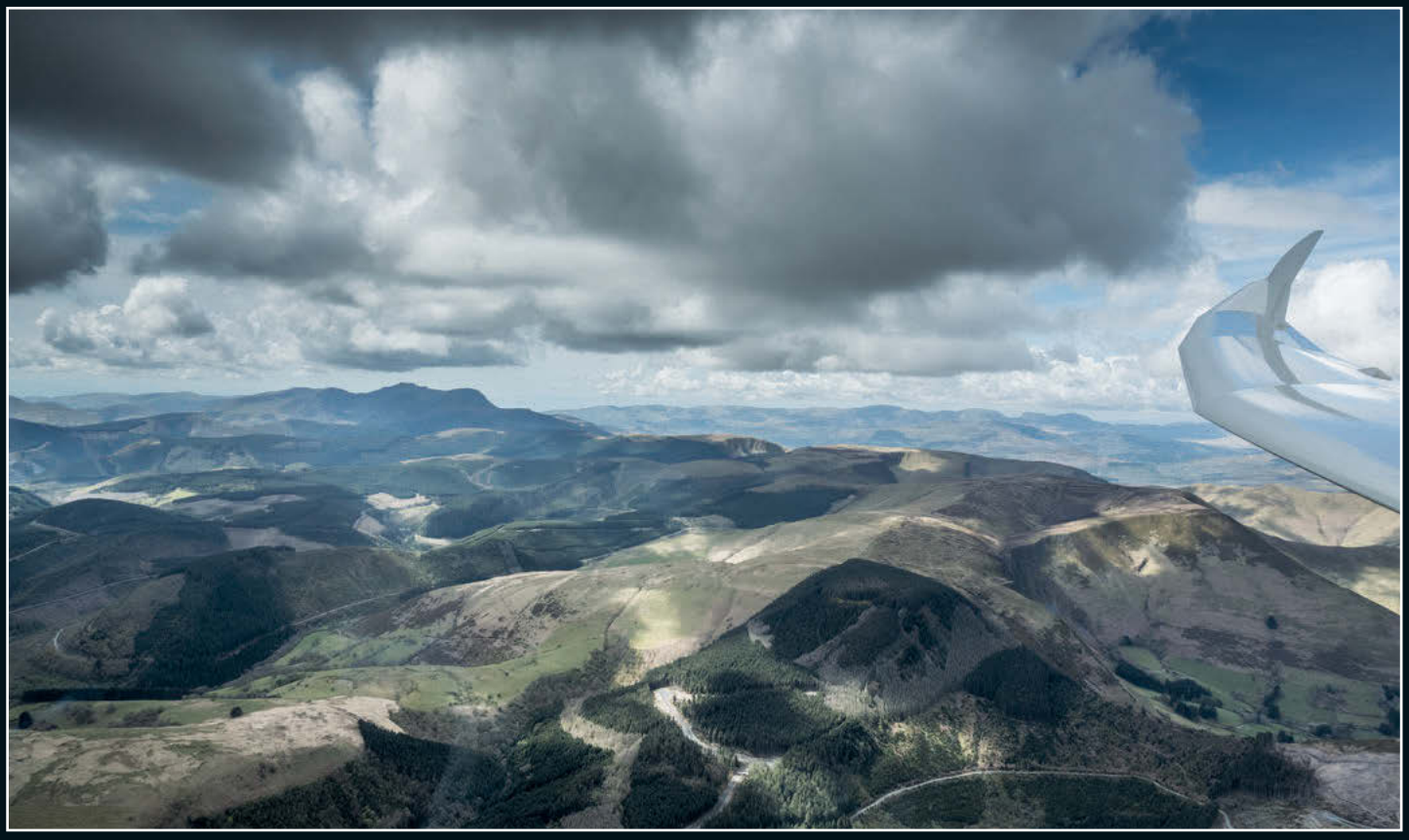
Burn GC re-opened for general flying on 12 April 2021 with some of the most fabulous weather ever seen in April – 6,000ft cloudbase, 6-8kt thermals, endless visibility and a light NW breeze (Alastair Mackenzie)

■ 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*




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&GLIDING
WINTER
WAVE


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XX




CCM
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HAZARDS OF GOING GREEN

With electric cars soon to become the norm, John Watkinson looks at the impact of the green revolution on towing gliders

TOWING is the most common method of moving gliders around by road. It is a subject that is poorly understood, and which is now under threat from the headlong rush towards electric vehicles. Towing is defined as an unpowered vehicle being pulled by a powered vehicle. Let's call it a trailer for simplicity. The towing vehicle has to propel its own mass as well as that of the trailer and any payload, yet the thrust the towing vehicle can develop is limited by the weight on its driving axle or axles.

Figure 1 (facing page) compares some ways of carrying the same payload. At a) we have a laden vehicle, with much of the weight on the rear wheels. A conventional front engine rear-wheel drive vehicle has plenty of traction when laden. Clearly driving the front wheels would not be as good.

At b) the vehicle is instead towing the heaviest legal trailer, which means that only half of the total rig weight is on the wheels of the towing vehicle. The total mass of the rig has increased by the mass of the trailer. The missing payload has moved the weight distribution of the towing vehicle forward and the small nose weight of the trailer doesn't compensate. Now driving the front wheels gives better traction, but in either case the limited load on the rear wheels is not good for stability.

A trailer is cheap because it has no engine, but the economy is not without compromise. Simple physics shows that towing a trailer diminishes traction. Compared with carrying the load on the vehicle, using a trailer will also require more fuel not just because of the extra weight, but also because of the extra aerodynamic drag. Another aspect of towing is the stability problem and consequent higher insurance cost.

Simple physics and legislation requires that the towing vehicle must be at least as heavy as the trailer. That extra mass is only needed when the trailer is actually being towed. The rest of the time, the owner is driving around in a vehicle that is too big and too heavy for his needs, and burning more fuel into the bargain.

Where it is possible, a single vehicle solution is usually better than a towed solution, having better traction and stability, lower fuel consumption and being easier to reverse as well as being cheaper to insure. For example, a motor home will be shorter than a car and caravan and allows the family car to be selected on the basis of need, meaning that a much smaller and more economical car could be used. Equally a motor horsebox is preferable to a horse trailer.

That's all very well, but the glider owner doesn't have that option. Those high aspect ratio wings simply don't fit in any usual vehicle. If you have to move a glider by road, then a trailer is about the only option.





Owners of sailing dinghies have much the same problem.

Gliders vary in weight and so do trailers, but the figures I have found suggest 900kg for a glider in a trailer might be reasonable.

The advent of electric cars changes things somewhat, and not necessarily for the better. Despite all the hype, battery technology is not very good and batteries are and will remain a dreadfully heavy way of storing energy. The massive batteries limit the available payload. In passenger cars that are used to carry one or two people and not much else, that may be acceptable, but in the rush to appear environmentally conscious, our lawmakers seem to believe they can change the laws of physics.

Glider, small boat and horse owners presently have transport solutions. Owners of catering trailers have ways of getting them to events. Caravan owners have suitable tow cars. Motorhomes have adequate range. It is not an exaggeration to state that electric power is practically useless in all of those applications.

Very simply, in an electric vehicle, most of the energy used goes into propelling the battery and only a little is left for the payload. It follows that any electric vehicle capable of carrying a payload over a reasonable range would have to have a massive battery that would put the vehicle over the weight limit for most car drivers, to say nothing of the cost of that battery. For that reason the MAUW limit for electric vehicles has been raised from 3,500kg to 4,250kg just to allow such vehicles a range of 80 or so miles; less if fully laden.

Put a trailer or caravan behind any car and the extra mass needs more power to get moving and to climb hills. The extra rolling resistance in the tyres needs more power and the seriously increased drag also needs more power.

In a fuel-burning car that is reasonably matched, the extra load results in the

Will conventional towing become obsolete? As things stand, glider trailers have no viable electric solution and nothing in sight

THE ADVENT OF ELECTRIC CARS CHANGES THINGS SOMEWHAT, AND NOT NECESSARILY FOR THE BETTER

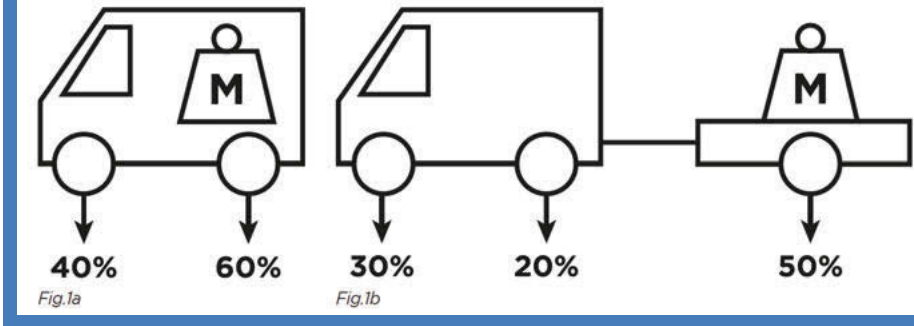


Fig.1
At a), the weight distribution of a laden vehicle suggests driving the rear wheels.

At b) the same payload is carried in a trailer towed by the vehicle of a). The percentage of the total weight on the rear wheels has fallen and it may be better for traction to drive the front wheels.



John Watkinson is the author of *The Art of Flight*, published by the AIAA, and *The Art of the Helicopter*. He is a polymath, author, educator, pilot, expert witness, and consultant. John graduated in electronic engineering and holds a master's degree in sound and vibration. He is a Fellow of the Audio Engineering Society and a Chartered Information Systems Practitioner. John is the author of more than 25 technical books, many of which have won awards. The quiet revolution that is digital technology has transformed many of his fields of interest, beginning with audio, then television, cinema, and aviation. Each time he has been there to explain the transformation. Living in a carbon-neutral house in rural England, John restores antique clocks and classic Jaguars.

■ With thanks to Herefordshire GC's Tony Maitland for suggesting this article, having read an article by John Watkinson in *Jaguar Driver*. Thanks also to the magazine's editor, Gaynor Cauter.

engine working in a more efficient part of its fuel consumption graph for more of the time, so although the fuel economy is going to be trashed, it's not as bad as it might be.

Electric cars are hampered by battery technology and one way of improving range is to reduce drag. Electric cars tend to have low drag coefficients, which means that when they tow a trailer the drag increases dramatically.

The electric car doesn't become more efficient at higher power levels, which means that the range goes down in proportion to the extra power needed. In a recent test of a Jaguar I-Pace, the tester pulled a small caravan that was within the towing weight limit of 750kg and managed a range of 108 miles. You would be lucky to get a glider and trailer down to 750kg.

Larger electric vehicles can tow more, but they are all heavy and expensive and they all suffer from the same range problem. Most testers and reviewers reckon that towing a caravan halves the range of the tow car. I would estimate that the large surface area of a glider trailer would make matters worse and I would guess the range would be reduced by two-thirds to typically under 100 miles.

The problem is then compounded because the bigger the tow vehicle, the longer it takes to charge. Towing a glider, you might spend as long charging the car as driving it, when you would rather be flying. This may be an academic problem, because a car towing a glider or a caravan won't fit in a charging bay.

Having a small trailer to take garden waste to the local dump now and again won't be a problem. How about a cross-country glider flight where the recovery crew follow by road with the trailer? With an electric car you can forget it. Forget that touring holiday in a caravan.

All we get in the media is that these problems are temporary and that in the future battery capacity will increase and chargers will become more powerful. There are two difficulties with that hype. One is that battery technology is now mature and into diminishing returns. Batteries will never have the energy density of hydrocarbons. The other is that charging batteries at a high rate always shortens their life.

The biggest problem is where all the electricity is going to come from. We are supposed to drive electric cars and abandon burning fuel to heat our homes, but we don't see plans for a huge increase in sustainable electricity generation.

Only the gullible believe electric vehicles are carbon neutral. In fact they take on the carbon footprint of whatever charges them. The vehicle is free of pollution in use, because it is emitted elsewhere. The UK does not have carbon neutral electricity. The government's own figures for the carbon content of electricity are on the internet. The only advantage of electric vehicles is improvement of air quality in built-up areas.

Carbon emissions

If you take the energy used to tow a glider in its trailer with an electric car, which will be about three times the energy used when not towing, and calculate the carbon emitted when that electricity is generated, you may be surprised to find that it is quite similar to the carbon that would be emitted by a modern turbodiesel towing the same glider. If readers have figures for fuel economy when towing their glider trailers I will happily do the calculations.

So what do motorhomes, caravans, horse riding, dinghies and gliders have in common? Quite simply they are all environmentally conscious activities. The glider and the dinghy are both effectively solar powered. Horses are powered by biomass and staying in a motorhome or caravan has a fraction of the carbon footprint of staying in a hotel. Not one of these activities takes place in a dense urban environment.

The headlong rush towards electric vehicles has not been thought out. As things stand, the glider or boat trailer, the caravan, the horse box and the campervan have no viable electric solution and nothing in sight and the people who make them, sell them and use them should be raising merry hell about their future and pointing out that camping/caravanning, gliding and dinghy sailing already have a low environmental impact and should be encouraged rather than impeded.

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THE WIND:
WHERE IS IT BLOWING FROM?

LX Nav's HAWK uses a new way for its varios to better measure what the air is doing around us in flight, providing real-time wind indication



■ This is an excerpt of an article first published in *Segelfliegen* 2-2021

Authors: Prof. Heinrich Meyr (RWTH Aachen, Barkhausen Gmbh), Peng Huang (Vodafone Chair, TU Dresden), Roland Bieri. Picture: Roland Bieri. Graphics: Heinrich Meyr and Martin Dinges

FOR the glider pilot, it is essential to know how the airmass is moving in its surroundings. Today's TEK (total energy) varios work very well for measuring vertical airmass movement as long as the aircraft's speed is approximately constant, for example, when thermalling. To prevent energy conversions due to "stick thermals" from being incorrectly displayed as rise or fall values, the vario must be well compensated. However, horizontal changes in airmass movement, ie, horizontal gusts, are interpreted by the TEK vario as false climb or sink values.

As important as the vertical movement of the airmass is the horizontal component, which we commonly refer to as wind. Especially in mountain flying, ridge soaring and wave flying, pilots appreciate wind information that is precise to the second. But wind information is also very important for lowland pilots to find and centre thermals. Dinges showed this very clearly in an OSTIV article (see figure 1, above right).

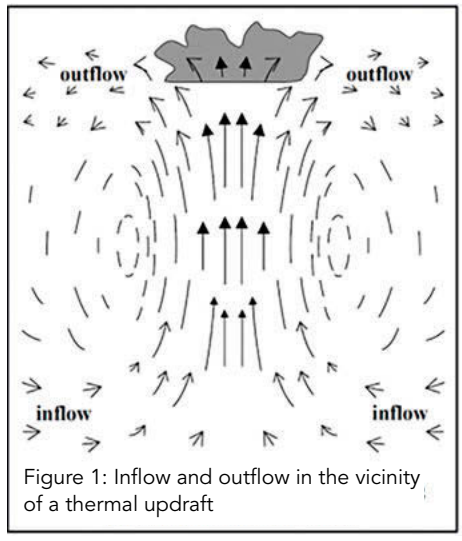


Figure 1: Inflow and outflow in the vicinity of a thermal updraft

The wind calculation

How do we get wind information in the glider and why haven't we had an accurate real-time display of the wind long ago? The reason is that the wind estimation algorithms known today require a very long averaging time. They can only estimate the average of a constant wind and are therefore of very limited use.

The electronics available today allow wind estimation based on the wind triangle that every student pilot knows from training. The problem with this solution is how many pairs of triangles should one process in the sliding window? How to determine the accuracy of the estimated values? The larger the sliding window, the greater the accuracy (since the errors of the individual estimated values cancel each other out on average). The precondition is that the true value of the wind in this window changes only slightly. On the other hand, one wants to keep the length of the window as small as possible to be able to follow changes of the wind. A compromise will therefore have to be found between the two contradictory objective functions of 'accuracy' and 'rapid rate of change'.

However, the task is far more complicated. We have not considered vertical airmass movement.

The three-dimensional wind triangle

Airmass dynamics are three-dimensional. We must therefore extend our consideration to include the vertical dimension. For this purpose, we introduce the three-dimensional wind triangle. How should we proceed in solving the problem? Here Immanuel Kant should be quoted: "There is nothing more practical than a good theory."

Communications engineers have long since embraced this. Today's mobile communications technology operates very close to the information-theoretical limit. Very succinctly, this is captured in the sentence: "We trade physical quantities (power, bandwidth efficiency) versus signal processing complexity."

Applied to three-dimensional wind measurement, this means that we design an algorithm that provides the most accurate wind indication possible (for all three dimensions), which can also follow rapidly changing wind vector changes (second-by-second wind measurement). The algorithm should estimate all three components together and not separate the vertical and the horizontal components. Mathematical system theory also answers the question under which conditions wind estimation is possible. In the limiting case of an exactly straight-line flight motion and perfectly calm air, this is not possible. All triangles are identical. However, we could show that the random changes in the airmass movement are sufficient to make the system 'observable'. In mathematical system theory, observability means that the state of the system can be determined from past measurements.

The algorithm used is the Extended Kalman Filter (EKF), named after RE Kalman, who published the algorithm in 1960. The Kalman Filter is one of the most fundamental algorithms in digital signal processing; without the EKF, no spacecraft would have landed on the moon.

How does the EKF work?

The HAWK unit consists of an ARM processor and a sensor unit. The computer runs a mathematical model of the aircraft kinematics, airmass movement and sensor imperfections in real time. The model contains the state variables, such as the position, the ground speed, the wind speed. The model calculates these state variables in real time. The sensor box contains the following sensors: GPS, pressure sensors for static and dynamic pressure and an IMU (inertial measurement unit) with a three-axis accelerometer and a three-axis gyro sensor (angle changes). Depending on the sensor, signals are processed at a clock rate between 10 and 100Hz.

It is clear that the Kalman filter is balancing between the *a priori* information of the process model (how trustworthy is the prediction?) and the accuracy of the sensors. If the sensors are very accurate, it trusts the measurement and overrules the prediction values. If the sensors are inaccurate, it relies on the prediction.

Due to the mathematical dependency of the variables, it is possible to estimate quantities that are not directly measured. There is no sensor for the three-dimensional ground speed or the likewise three-dimensional wind speed. A mathematical link exists, for example, between the speed and the position. The position change is equal to the product of speed and time interval. Consequently, an estimate of the speed is obtained indirectly from the measurable position.

There is only one dynamic pressure sensor, which is linked to the amount of true airspeed via a quadratic function, but gives no information about the direction of the velocity vector. But how can we still determine the direction of the velocity vectors? Answer: With the help of the three-dimensional wind triangles, as explained in the section on wind calculation. The prerequisite is that one chooses the variables in the EKF in such a way that this is possible. This choice is a very challenging mathematical task.

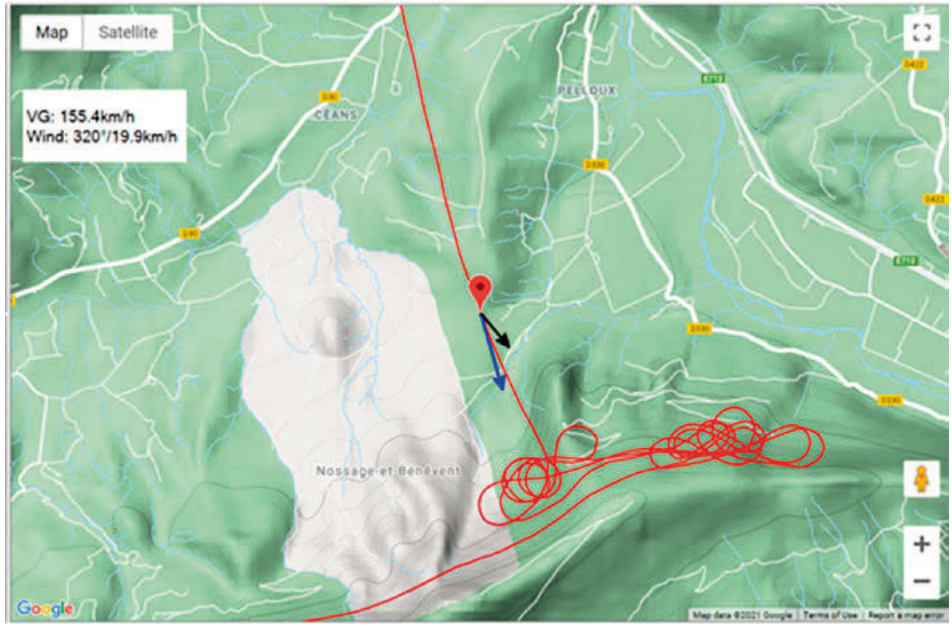
Experimental results

The HAWK has been tested by several pilots over the past year. Firstly, a flight by Klaus Ohlmann on the slope of the Chabre, France, in weak conditions. Klaus said: "With initially very tired ridge lift, one could easily read exactly where it just worked, because of a weak wind, and where it didn't because the wind was too weak. Ridge lift at the Chabre, mixed with thermals and a very moderate north wind, and then under cumuli weak eastly wind on the south-east slopes near Orpierre.

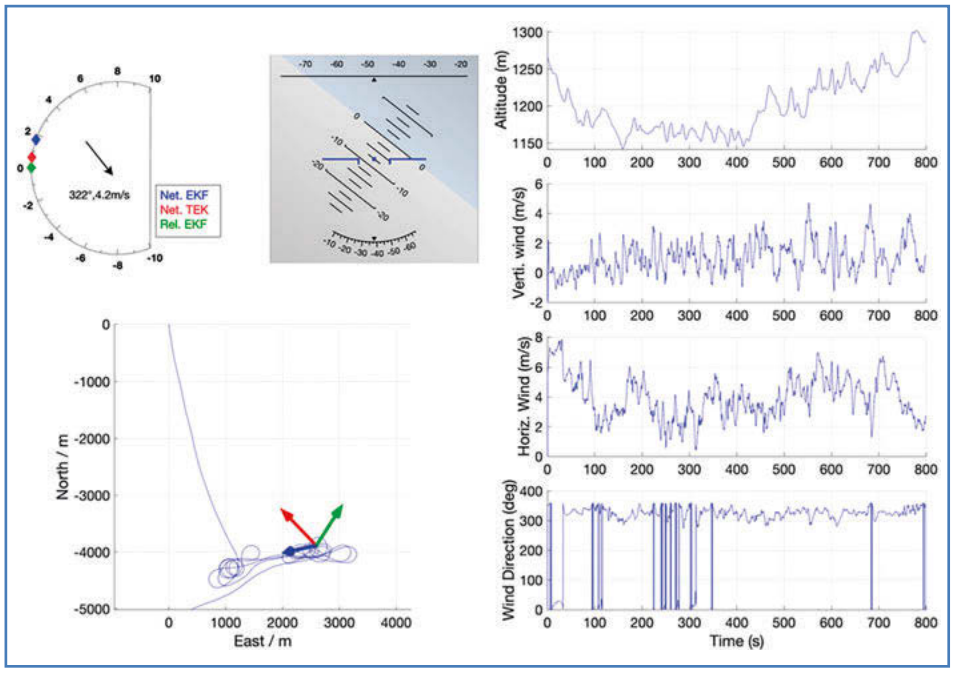
"A second log nicely shows the approach from the Durance to Serres with the strong wind increase and west turn in the Venturi between 'the bathtub' and the Crete

THE COMPUTER RUNS A MATHEMATICAL MODEL OF THE AIRCRAFT KINEMATICS, AIRMASS MOVEMENT AND SENSOR IMPERFECTIONS IN REAL TIME

■ *www.gliding.lxnav.com*



Klaus Ohlmann tested the HAWK during his 31 August 2020 flight from Serres (see also graphic on page 34)



Above: the course of height, vertical wind speed and horizontal wind reflect Klaus' statements on the weak winds

IT IS DESIGNED TO CORRECTLY PROCESS TIME-VARYING AIR MASSES. WHEN FLYING, THIS IS THE DECISIVE ADVANTAGE OF THE EKF VARIOS

de Selles, which is typical for north winds. It was really fantastic to follow this phenomenon live 'in the instrument'.

"In addition to current valuable information for approaching the correct slope, this provides an excellent opportunity to analyse and understand the complex flow conditions in the mountains."

Comparison of TEK and EKF

The TEK (total energy) vario and the EKF measure the same physical quantity, but with completely different measurement methods. Therefore, for a meaningful comparison of the results, differences in the measurement methods must be addressed.

A conventional TEK measures the vertical airmass movement, based on the law of conservation of energy. In perfectly still air, a change in kinetic energy (velocity) is compensated by an exactly equal change in potential energy (altitude). If you pull the stick and therefore the airplane climbs, the pointer remains at zero. The TEK vario is perfectly compensated. Note that we have neglected the small sink rate of the glider in this statement.

However, even a perfectly compensated TEK shows us horizontal wind changes (gusts) as climbing (if the wind shear is positive) or sinking, although there is no vertical air motion. These false indications are due to the measurement method (one-dimensional energy conservation) and cannot be compensated.

The EKF estimates all three dimensions of air mass movement simultaneously. It is designed to correctly process time-varying air masses. When flying, this is the decisive advantage of the EKF varios. If the EKF indicates a climb during fast forward flight, the indicated climb value is equal to the climb of the vertical airmass, independent of the speed of the aircraft and horizontal speed or flight path changes.

From what has been said, it follows:

- Because of the systematic error of the TEK, a comparison of the two varios in the transition from fast straight flight to thermalling is not meaningful. Every good pilot has learned through much practice to 'correct' the errors of the vario in his head.
- The EKF vario does not need compensation. This is an advantage in practice.

Other applications

The available data allows a wealth of further evaluations. HAWK knows the attitude of the aircraft and can display an artificial horizon. Another important parameter is the angle of attack (AoA). The AoA could be used in different ways. For example, as a classic stall warning. All relevant values are available in the HAWK and can be included. For example, when flying along a slope in gusty conditions, there are always situations in which the AoA becomes too large without this being announced - even with supposedly enough speed reserve. Stalling on a slope or during landouts is a far too frequent cause of serious accidents.

It is conceivable that AoA information is used differently depending on the phase of flight. When flying close to the ground, a warning is given before exceeding a critical angle of attack. This could be indicated, for example, by vibration of the control stick. Would it be conceivable that the optimum angle of attack is displayed when circling in thermals? It would also be possible to configure it according to the pilot's needs. For example, a different warning level could be selected for student pilots than for a competition pilot.

■ With thanks to Lasham GS's Bruce Nicholson for suggesting that *S&G* published a translated version of this article, which featured in *Segelfliegen*. Thanks also to editor Brigitte Gabler for permission to publish.

■ For the full article, which includes more technical details and graphics, please scan the QR code to the right, or visit:
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Finding a way through the clouds for an aerotow up to 4,000ft (Mark Robinson)

ABSOLUTE JOY TO BE FLYING

Chris Lewis reflects on a heavenly final flight before lockdown with Mark Robinson

WEDNESDAY 4 November 2020 was forecast to be cold but sunny, and as it was going to be the last chance to fly for at least a month, I decided to go for it. The Shark was already stashed away in the barn at Hill Farm, but the Duo was in its T-hangar at Gransden Lodge and available to fly.

The BBC forecast suggested it would be blue all day, and the visibility should be good after the recent rain. However, any convection was likely to be very weak, and the prospect of taking a launch and quickly floating back to ground level was not terribly appealing. Something different was called for.

So I thought I would put the turbo to use in a positive way. I'd take a high aerotow for starters, then motor off to the north-east in the hope of getting far enough to see the sea whilst still being in gliding range of Gransden.

It didn't take long to get the Duo ready with the help of Richard Rigby, a long-term friend of mine, who has recently joined the club as an associate (non-flying) member. We pulled her out of the T-hangar, popped on the tailplane, and did the DI and positive checks. Map, seat cushions, parachutes and Oudie completed the preparations and we were soon towing out to the aerotow launch point.

Pete Belcher was tug pilot and Mark Robinson was helping out at the launch point. I had not yet persuaded Richard to





Heading north at 6,000ft and, above right, back near Oakington, circling down through a hole in the clouds (Mark Robinson)

come up with me, so I suggested that Mark might like to take the back seat for old time's sake.

After a long, squelchy ground run behind the tug, we were finally airborne. Some cu was starting to form and a small amount of turbulence suggested weak convection, but not enough to get excited about. With cloudbase looking around 2,500ft, it was clearly not going to be soarable enough to go anywhere.

I asked Pete to find a way through the clouds and take us up to 4,000ft. That got us above cloudbase, but not yet above the tops.

We dropped the tow just west of Caxton Gibbet and I handed control to Mark and started up the engine. After the usual spluttering and misfiring it soon came on song and ran smoothly. I had briefed Mark on my plan to head for the seaside, and we both had ear defenders so the noise was not too oppressive, though conversation was not possible. I raised both my hands above my head to signal to Mark that he continued to have control and sat back to enjoy the view as we gently climbed between the clouds.

Slow progress

After 10 minutes or so, Mark handed back to me so he could take some photos and I continued climbing at 50kts, making what seemed like very slow progress over the ground.

We motored slowly past Oakington and Earith, making about 59kts over the ground, so the wind must have been around 9kts. On the left we could see Sutton Meadows' grass runways clearly visible amongst the brown fields around it – most unusual, as the airfield is usually very difficult to spot even when you know where to look.

We were climbing in smooth air, but I noticed that some areas were better than others and the climb rate varied between 0.5-2kts so there must have been some weak wave around. But not enough to work on without the engine, so we pressed on.

Unfortunately, the cloud cover below us was increasing as we went east, though there were enough holes to make out Ely to our right, followed by Littleport.

We passed through 6,300ft about 5km west of Littleport, which gave us a comfortable 2,300ft over final glide back to Gransden. But further east the cloud cover was looking pretty solid, and there was no way we were going to be able to see the sea from a distance.

The glide margin was slowly eroding; our slow climb rate as we motored downwind was not enough to fully compensate for the sink rate we would get when we turned off the engine and glided back home against the wind. So I decided to call it a day and shut down the engine. We had run it for just over 20 minutes and burned just three litres of fuel.

(Had I been flying the Shark Jet, the 26 litres of Jet-A1 would be more or less gone by now, though I would have been quite a bit higher and much further along my route.)

Ear defenders off, we could finally talk again, and I told Mark that I would push on a bit further as long as our margin was above 2,000ft. This took us another 1-2km. We could see Downham Market in the distance, but King's Lynn was hidden by the cloud and we were not able to see the sea beyond.

We turned for home, heading into the sun and being treated to a magnificent view of the clouds way below us and the sunshine glinting off the 100-foot drain, which was flooded in the broad area between the two water channels. It was blissfully quiet, and completely smooth. An absolute joy to be flying.

On the way back, our glide margin went up and down as we passed back through the weak wave, but never got below about 1,700ft. The cloud cover was increasing slowly, but we agreed that there were enough holes that we could circle down near the airfield with airbrakes open if we had to, and in the meantime pressed on to see how things developed.

We arrived back near Oakington at 3,500ft, some 2,300ft above final glide. Here there was a very large patch of cloud-free air, and I started to circle in a very gentle right-hand turn so we could enjoy the view as we descended. It was taking about a minute for each turn, and after seven or eight minutes we were down to 2,500ft and below cloudbase. We headed for home, exploring a few clouds on the way, but nothing doing.

We passed Caxton Gibbet at around 2,000ft, which gave us plenty of height for a big wide left-hand circuit and a long approach into the diamond. We touched down at 14:20 after one hour and eight minutes. What a lovely flight!



Chris Lewis soloed in a T-31b at Rufforth in 1964, but gave up gliding after university. He joined CGC in 2005 and has almost 2,000 hours. He flies a Shark Jet and has a half share in a Duo Discus Turbo 8F.



Turning for home, heading into the sun and being treated to a magnificent view of the clouds way below (Mark Robinson)



Mark Robinson joined CUGC in 1988 and flies a DG-500 (22m).



Photograph by Kristyna Kachtikova

TRAINING



When landing ahead after a launch failure, it doesn't matter if it's on a lake, as long as you have prepared for this before every flight. Oystein Bjorklund reports

WHEN the tug experienced engine problems and loss of power just after take-off at Norway's Notodden airport, there was just one safe option; to land straight ahead in the lake. Things happened quickly and, thanks to being thorough with my checklists, I was able to make the right choices.

Saturday 1 May started out as any soaring weekend at Notodden airport, where my club Sandefjord has its base. Soaring conditions for Southern Norway looked promising. Based on the SkySight forecast I had planned a 350km task to Seljord, Gjerstad and Fyresdal. A task not too ambitious and in a part of the country I know well, having spent a good part of my approximately 650 soaring hours in this area. I'm still quite focused. The soaring season has just started and this is only my second launch this year in the Discus bT

MATTERS









❶ A local cabin cruiser rushed to aid Oystein and arrived at the scene just minutes after splashdown (Jean-Jaques Maillet)

❷ + ❸ The airport's fire department tows the Discus carefully backwards towards a seaplane ramp

❹ At the seaplane ramp the rescue crew is met by club members ready to pull the Discus out of the water (Kristyna Kachtikova)



What makes taking off on RW 12 a bit interesting is the seven square mile lake, Heddalsvatnet, you find 650 feet down the extended centreline at the end of the runway

I own with clubmate Arne Martin Güettler.

After a thorough DI I'm ready to line up with the tug at RW 12. What makes taking off on RW 12 a bit interesting is the seven square mile lake, Heddalsvatnet, you find 650 feet down the extended centreline at the end of the runway. I climb into the cockpit and make myself ready to launch. Due to it being early in the season, I'm taking extra care to do my pre-flight checklists thoroughly not to miss anything. That includes the visualisation of the emergency procedures, including the interrupted start with a possible water ditching.

Our Dynamic tug plane enters the runway and pulls up in front of me; the tow line is hooked on to the Discus, checklists complete and I give the thumbs up to my wingtip-runner. After a short take-off run on the tarmac, we are airborne. Business as usual. Or not…

Racing down above the runway, something is off. We are not climbing as much as we usually do. For a second I assume the tug pilot just wants to build speed for his climb, as they sometimes do. But as we are passing the taxiway to the tower, and decision point, the Dynamic releases a black puff of exhaust. Our height is about 130 feet at that point. Oh my, that's not looking good! I then realise the tug has a problem and we have a situation. The tug pilot comes on the radio: "Engine trouble – engine trouble!"

How bad? Will he be going down?! Do I release? The tug pilot likely has his hands full in the Dynamic so I don't reply, but decide to hold on for a second as I get my hand on the release handle. He then comes on the radio again, indecipherable to me this time. Did he ask me to release? As I reach forward to max the radio's volume, the Dynamic suddenly drops out of view in front of my glider's nose, apparently losing altitude. I react instantly and pull the release.

Suddenly free of the tug plane, I observe that the last 250 feet of runway is about to run out. Trying to set the Discus down will put me in the scrub forest down towards the lake. No option. For a split second I consider following the Dynamic's halting turn back to the field. A quick look at the altimeter, followed by a sideways glance at the









lakeshore trees looking way too tall, confirms I have about half the height needed for a safe return. A 180º turn will be disastrous. No option.

There it is: "Below 300 feet, land straight ahead." There is no way around it. My instincts and reluctant brain trying to find ways to avoid the water are overridden. Decision made, I key the mic: "Papa Sierra landing in Heddalsvatnet."

Training kicked in

A concentrated calm and task-solving mode sets in. The cliché goes: "and then the training kicked in", but that is exactly my experience. Due to the low altitude things are happening fast, but I manage to pick a landing point about 300 feet out from a pier belonging to Notodden Technology Park. Deep enough for momentarily becoming a submarine, hopefully close enough to shore for a possible swim in the icy water.

I start my final while going through the water diching procedure: fly the glider, wheel out – check, tighten the belts – check, master switch to off – check, close air vents and canopy hatch – check, unfasten parachute – no time! Time to flare! I ease the stick backwards and the Discus hits the water surface wings level at stall speed. I get a glimpse of huge sprays of water shooting sky high before I am ducking under. The cockpit goes murky greenish and dark as the Discus points its nose half downwards and comes to a rather abrupt halt in a submerged dive. I'm hanging in my harness, like when opening your parachute after free falling. The small air vent in the canopy's sliding window tears off and a water hose like spray shoots into the cockpit before the glider starts moving backwards. The cockpit then pops out of the water as I'm re-emerging at the lake's surface.

Mission complete! Well almost. The Discus appears to be floating quite fine, but the cockpit is filling with water and I'm not sure if, or for how long, it will float. Still in task-solving mode I unfasten my harness, take the parachute off and secure it in the cockpit, make sure my phone is safe in case of a swim, power off the Oudie, GoPro and power bank, and climb out on the wing. The Discus looks intact, and not sinking. I'm intact, not even sore with the harness. I now just hope someone has seen my landing

❺ + ❻ Club mates are going all out to rescue the Discus. In times of need you will know your true friends

❼ The total energy probe is removed and carefully placed inside the cockpit

❽ Checking for damage: No visible damage except for a missing wheel hatch and a transponder antenna (Kristyna Kachtikova)

THE COCKPIT GOES MURKY GREENISH AND DARK AS THE DISCUS POINTS ITS NOSE HALF DOWNWARDS AND COMES TO A RATHER ABRUPT HALT IN A SUBMERGED DIVE



Oystein Bjorklund, 49, is a graphic designer, photographer and film producer. He lives 10 miles east of Oslo in a municipality called Lorenskog. Oystein started gliding in 2008, solo in 2010. His logbook shows approx. 650 hours in gliders. Oystein owns the Discus bT together with Arne Martin Güettler. His gliding club is Sandefjord, with its home base at Notodden Airport ENNO in Telemark, Norway. The airfield is situated just next to Heddalsvannet lake. This is the county where the famed saboteurs from Linge Company/Norwegian Independent Company 1 – formed by Special Operations in 64 Baker Street, London – blew up the Nazi heavy water factory in Rjukan, Norway, during WW2.

and that I don't have to swim. The water temperature is approximately 6ºC. It's a bit chilly.

I then spot a local cabin cruiser steaming towards me at high speed. An ambulance is on its way along the road from town and club mates, the airport's fire department and police are speeding towards the pier. Someone has definitely seen my landing! Nothing more to do than wait.

As the cabin cruiser reaches me, I can see their pulses are a bit higher than mine. Quite understandable as they didn't know what state I would be in, and what would meet them.

After confirming that I am OK, the boat owners ask what the plan is. They agree to towing me and the glider to the pier and toss me a rope. What a weird day. I was on my way to do a 350km task in comfortable soaring conditions. Two minutes later, I'm sitting on the wing of my Discus in a lake being towed sidewards ashore by a boat.

The fire department's boat arrives and takes over the rescue. With a finely-tuned operation they get me aboard their rescue boat and together we manage to tow the Discus to a nearby seaplane ramp without inflicting any damage to the plane.

At the ramp we are met by every club member at the airfield that day. Everyone just dropped whatever they were doing and, together with the rescue crews, they make a formidable effort to get the Discus out of the lake, draining it, disassembling, and moving by trailer into our workshop. Club mates jump into the freezing lake without hesitation, even diving to fasten the tow rope to the CG hook to be able to haul it ashore. What a team! It is truly heart-warming.

There was no structural damage to the glider. All we spotted was damage to one of the wheel hatches and transponder antenna. Despite the engine problems, the tow plane managed to land safely back at the airport. The tow pilot even helped get the Discus out of the water!

The formidable job of going through every bit and piece to get the plane airworthy and 100 per cent again is well on the way. The work is involving authorised glider technicians, central CAMO organisation, Solo Kleinmotoren, Schempp-Hirth, aviation engine company Edge Performance, and the insurance company HDI. There is still a bit of work ahead of us and, as I'm sure you'll agree, ditching in a lake just to see if the glider floats is not to be recommended unless you have a lot of time on your hands.

What can be learned from this?

Having had some time to reflect, there is no doubt in my mind:

- Being thorough and diligent with procedures and checklists for interrupted take-offs is vital. In a stressed situation you stand a much better chance of correctly executing procedures if you have visualised and mentally rehearsed these beforehand.
- I believe visualising landing straight ahead into the lake each time I go through the pre-flight checklist for RW 12 is the only reason I was able to make the right choices that day. I don't think I would have been able to both come up with the right things to do and act on them correctly in the situation if I was acting on impulse. Especially with the short timeframe dictated by the low altitude.
- I experienced the initial instincts and impulses as being really strong. My first impulse was to toss the glider around and force it back towards the airfield, but this would not have ended well. Hanging on to the tow plane as it struggled back over the treetops towards the airfield at minimum power could also have led to disaster for both of us. Last, I simply wanted to stop instead of proceeding out over the lake after having released. Not very good strategies, any of them. At low altitude there was only one choice; to land straight ahead with minimal course alterations. Impulse went out the window as I started doing what I had rehearsed half a minute earlier.

■ **With thanks to John Hull, BGA Safety Committee member, for suggesting this article for *S&G*.**



Safely out of the water and draining before being de-rigged (Kristyna Kachtikova)

THE SOARING ENGINE VOL 4

Airframes and avionics

I'M NOT going to lie to you, parting with the price of an aerotow for Volumes 1-3 of G Dale's superb books in *The Soaring Engine* series was a great investment, but I wasn't so sure about this title.

One subject per page allows time to reflect on the tricky subjects and allows the reader to "dip in and out". The author's ability to make the complex simple, and to filter out essential information and pass it on in an easy to understand format has become a trademark.

Volumes 1-4 cater for all pilot abilities and experiences. For the less experienced they are a gold mine of essential information. However, for pilots with several thousand hours of experience over several decades there isn't much to learn from this book, right?

How wrong I was!

Volume 4 contains a wealth of good advice from the simple (don't eat peanuts, you don't want to choke up there) to the more complex, with excellent graphs to help clarify each point, such as those for choosing the range of block speeds for your glider and circling polars. There is an explanation of why a little 'out string' in a thermalling turn can be helpful, and essential advice on aerotowing with ballast – two areas written little about in other books.

How would you cope with a power loss to the panel? A section on redundancy encourages you to plan for it. The book is brought right up to date with extensive advice on setting up the modern instruments and computers.

There is a beautifully simple diagram under the page entitled "how could anyone spin by accident?". Reading how a spin could happen inadvertently in a real-life situation really could save your life, just because it describes a scenario that is easy to imagine happening rather than the high-level exercises we perform in a glider.

The total energy system no longer seems like "Black Magic" and I'll respect VNE even more now.

A lot of information in the gliding world is imbibed over time by flying and talking with experienced pilots, but this can take years. A great quote from Volume 4 is "It isn't that hard to fly gliders. The difficulty is that it is hard to learn to fly gliders because once a pilot reaches the standard where he can go off on his own the training stops." We can all relate to that.

For the less experienced pilots *The Soaring Engine* series gives a huge amount of knowledge.

For the more experienced? Here's an exercise. Write a list of your top three Abba songs. After listening to the top 30 your list may change as you're reminded of great songs you forgot about. G's books do this for you. They remind you of things you knew, but moves them higher up your memory. They are like the *Lett's revision guides* for glider pilots. I know I've avoided a few outlandings because I've scraped from low down as a result of one bit of information from Vol 1. Volume 4 will be equally beneficial.

Gliding is very complex, but also very simple. We often make tactically critical decisions in a few seconds. We need simple concepts, rather than complex theories, to act on. That's what these books do for you. "Street on the left, or the one on the right?" "Shall I leave this 3kt climb?" "How accurate is the information I'm basing these decisions on?"

You could borrow the books from a mate. All you're doing is cheating the author. Go and buy them now.

To answer the initial question, each of Volume 1-4 is well worth the price of an aerotow.

Paul Fritche, Lasham GS



The Soaring Engine, volume four, Airframes and avionics, by G Dale

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ADVISORY 20: CHECK FLIGHTS

Ebeneezer Grimshaw probes the evil that lurks under the surface for newbies... and for the more experienced



EXAMINATIONS are supposed to be a Good Thing… if somewhat ephemeral. I mean, how much can you remember from any of your exams? What marks do you think you'd get if you had to retake them tomorrow? And yet you wouldn't want to be examined by an unqualified doctor… (even though doctors do seem to get it wrong half the time). And as for being flown by an unexamined pilot… well… it's not just the qualifications that are the issue, but also how-on-form your captain is! I don't know about you, but I don't need in-flight 'entertainment' when I'm travelling. In a rear seat I can already see the flap settings and since they usually give you a moving map what I want next is an altimeter and an airspeed indicator. The Queen used to have these in the old Royal Flights, I believe. Presumably so she could shout at the pilot: "Captain... Queen here... *let's have a bit more speed there.*"

Sorry… wandering a bit. The point about exams is that first you do the swotting… then you do the practice… and next, when you're ready, you take the examination. Seems perfectly sensible doesn't it? **But not with check flights**. Strangely, check flights are the exact reverse of this process: First you take the examination… ready or not. The instructor shows you lots of things you're not doing right. Then he looks deep inside himself to decide how nervous he is. The Voice Of Doom says "*I have control*", which can happen in an instant and usually means you've failed. If you don't get any such utterances and if your instructor thinks he can live with his internal display of red lights then he lets you continue to fly solo.

After this you do the practice. Your next solo thermalling turns are likely to be a bit ropey. A bit zooomy. But fortunately there are no witnesses. Your attempt at an elegant slideslip into finals becomes a display of over-confidence followed by a rapid sort-out! The words in these practice modes are "*Whoops… hope no-one saw that!*" But eventually you get the hang of it again.

Finally, you might do some actual swotting. How high do I have to be to fly over a danger area? Is Prince Charles' house a 'danger area'? What is the point of having a MATZ if I can fly through most of it without permission? Wasn't there something about runway lengths and stubs? Or was it the diameter? In fact, the longer you look at an aeronautical chart the more questions spring to mind… some of them seem quite important!

Rusty

The fact is that we can all get rusty. I was amazed how rusty I became after six months in Covid purdah. My checks started on aerotow. And straightaway I noticed how fantastically heavy a K-21 with two overweight blokes in seemed after last year's carefree flitting about in my delightful Skylark. The first fifty feet on tow went well… but then came a gust from the northeast: "OI… GET OVER… YOU B*GG*R" quoth I. "WHOA… NOT THAT MUCH… back a bit… WHOOPS!" I'm the sort that thinks out loud you see. This was followed by… yes… you've guessed… "*I have control…*" from the

rear. He was thinking out loud too. So not a good start. This was then followed by various demonstrations of my inability to keep speed in a turn… utterly *ruthless* demonstrations. And this was a K-21… which are very easy to fly (too easy according to some instructors, but don't get me started).

By now even I could see the long rows of flashing red lights going off deep inside the rear cockpit. And it's not as if he was a nasty chap back there. He was quiet and polite… soft spoken… very reasonable… just very precise. Incredibly precise. Far *too* precise! Do we really need that level of precision? I mean for heaven's sake I can make this thing go left or right… up or down. Surely anyone can see that a chap with my abilities can get a crate like this down onto a field that big without doing too much damage… how hard can it be?

Somewhat chastened, I got a booking for next day. And I was a bit better. Although Instructor No 2 still kept banging on about speed control, his line of red lights couldn't have been flashing quite so alarmingly as the other chap's. He decided, after a bit of nail biting, that my agricultural flying technique was safe enough for me to be released back into the wild… at least on tow…

Some things have become clear:

The very act of being examined tends to send some people into an abnormal mental state. I'm definitely one of them. Not that I go to pieces mind you, but I keep asking myself '*what is this b*gg*r really after?*'. I keep trying to read his mind and get one jump ahead. And while I'm concentrating on that aspect another one tends to go to pot!

The best thing is probably just to give the guy a nice smooth worry-free ride. Forget that he's an instructor. Pretend it's your grandmother or someone. (No negative 'g'!)

But don't be fooled. 'Granny' in the back is not benign. She won't hesitate to get demanding and tricky… even lure you from the straight and narrow if she thinks you're doing well: "*Let's see what's under that cloud over there…*" No… let's not. We don't have the height! In fact, I would go so far as to say that 'Granny' has a definite evil streak, which tends to emerge if you start un-rusting too much.

This became very apparent on the winch launch checks. My third instructor was a breezy jolly chap. We got on like a house on fire. And in my more relaxed state, speed control was better than ever… although still a bit wobbly. But he wasn't worried about that. I knew that on the next flight, this jolly, fun chap was still going to ruthlessly sabotage my launch. I told myself: 'Instructors are not really evil… the poor chap *has* to do this… I must try to think the best of him.' But I lapsed back into trying to out-think him again: '*He'll want to see if I've remembered that straight ahead is best,*' I said to myself. So when BANG came at 420 feet I made sure I plunged down to almost 70 knots before heaving on the old airbrakes. Full airbrake all the way down. "*You've got almost 70 knots on,*" shouted the voice from the back. "*Yes I know… not the slightest danger of stalling… bags of control authority… great isn't it?*" We came to a halt some way past the winch. "*Um… why didn't you… er… fly the right hand 270 you talked about during pre-flight checks?*" he asked. "Well you know… straight ahead is best…" I replied, confidently prepared. "*Sure… but if you'd tried that flying the club Discus you'd have ended up in those trees…*"

Humiliation again

As if to rub in the point during the long walk back there was another BANG high up. Another instructor had pulled the release at a very similar height with another student. The glider dipped appropriately. It did not go into a 70 knot power dive. Instead at 55 knots or so it turned gently right and kept wafting round. An effortless 270 degree turn. Then with the unused corner of the airfield nicely lined up it was an easy, sedate, flawless landing. "Oh. You mean like *that*?" I said. "*Absolutely…*" said instructor 3. "*What was wrong with that?*"

Aww… spit. That's how I would normally have flown it! Perhaps, though, with a little more *zooom*. Sometimes you just can't win.

Anyway Check Instructor No 3 then decided it was time to do something more 'interesting'. Now listen… when an instructor says that… it's time to start worrying. We did wing-drop stalls, tight turns and sideslips, but I was loving it. He probably didn't realise that anything involving throwing the aircraft around goes down well with me and my 'agricultural' flying technique! So glowing with success I allowed myself to be lulled into a false sense of security. "*We're getting a bit low,*" I pointed out. "*So what would you do,*" he asked "*if you hit a load of sink on the downwind leg?... Like THIS…*" he said… pulling out the airbrakes. Ha… you can't throw me like that! I've been here before… I know exactly what to do. "*No problem… cut in on a long diagonal and turn in early,*" I said. "*No… let's pretend you can't do that*" he said. "WHAT???!!" "*Say the landing area's full of gliders. Let's land in Charlie's field…*" "*No,*



THE VERY ACT OF BEING EXAMINED TENDS TO SEND SOME PEOPLE INTO AN ABNORMAL MENTAL STATE. I'M DEFINITELY ONE OF THEM



■ All cartoons by Ross Martin

let's not!" I said. *"Yes… yes… It'll be good fun... er,* ***good practice****…"* he said, correcting himself rapidly. We were almost on top of it… bastard!

Charlie's field is a tiny bit of spare ground that slopes north from the valley up to our perimeter track three-quarters the way downwind for 27. No-one in their right mind uses it except for instructors trying to prove a point. I'd forgotten all about it… a definite mistake! *"Right… round we go,"* he said. "Just watch out for the tree on the approach." Eh? What tree? BLOODY HELL, THERE'S A TREE IN THE WAY! I'd forgotten about that as well… and with no leaves out yet it was hard to see. I shot over it with 60 knots and six feet to spare. Our landing run finished up across the perimeter track. *"Hmm,"* he said. *"I think we'll try that again…"* Apparently me getting us down in one piece wasn't good enough. He wanted me to go left or right of the blasted tree… not *over* it… and stop well inside the field edge. Instructors… honestly… and I thought we were getting on so well!

In the air again he cheerfully agreed that all instructors have an evil streak to them. And that ghastly admission didn't seem to bother him in the slightest. The idea that this very quality might very shortly be sending him straight to hell obviously hadn't occurred to him! I decided to go right of the tree…

This time we stopped 60 feet inside the boundary. I hopped out feeling pleased with myself, but Evil Man just looked back and stroked his chin thoughtfully. *"I reckon I could do that and stop near the middle…"*

I didn't believe a word of it.

So, dear newbie, beware the hazards of letting yourself get 'un-current', and try not to show too much rapid improvement or you, too, will discover evil streaks in people you once looked up to! And you'll discover something else. When you do manage to get a circuit or a manoeuvre absolutely bang on… completely nail it… is there anyone around to witness your aeronautical prowess? Is there hell! Your mistakes are widely viewed and commented on. *But your triumphs are yours alone!*

Sad, but true… as you will find out!

Ebenezer Grimshaw

■ NEXT TIME: the shocking truth about trim tabs

PHILIP WILLS MEMORIAL FUND

SUPPORTING GLIDING IN THE UK

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

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

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

We look forward to hearing from you.

In conjunction with the
BRITISH GLIDING ASSOCIATION

#8 THE WIND'S CRITICAL CONTRIBUTION TO BUOYANCY AND INSTABILITY

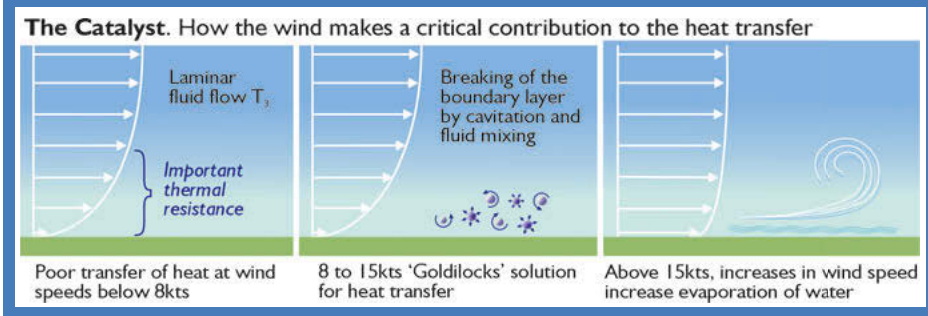


Figure 1: The Catalyst (illustration by Steve Longland)
GMAD – Gliding Mathematics and Atmospheric Dynamics

A CATALYST is something that starts or speeds up an activity between two or more forces without itself being affected. To that end the wind is a catalyst in the mechanism of producing lift. It can flow as wave, produce hill lift or convergence, but it also has a significant impact on the generation of thermals (buoyancy).

Consider a hair drier where the fan has broken. It is obvious that heat from the red-hot element is not efficient in heating the air and as a hair drier the product would be useless. In the natural world, no wind is, therefore, as much good to us as the hair drier without a fan. The tarmac melts in midsummer, but the heat is conducted into the ground rather than being conducted into the air, which is a bad conductor. On breezier days the surface wind blowing over the ground acts in the same way as the fan in the hair drier and vastly promotes the transfer of heat and evaporation of water from the ground into the air.

It is clear in the case of a hair drier that too little a flow will reduce the volume of air to being very hot, whilst too high a flow (a gale) will produce a large volume of mildly tepid air. So engineers will produce a 'Goldilocks' flow solution.

In the natural weather world of transferring energy from the land to the atmosphere to assist buoyancy, we have an effective catalyst, the wind.

Akin to the hair drier, a wind which is too light will not generate the turbulence necessary to generate an adequate volume of buoyant air. But what wind is best? Perhaps interestingly we can look at the properties required for the formation (and clearance) of radiation fog. Radiation fog will form at wind speeds between 3-7kts, but importantly not at 8+kts. At 8kts the air flow becomes significantly useful. For the same physical reasons which produces this minimum speed Goldilocks turbulent flow, the minimum wind speed for an effective transfer of heat from the ground into the atmosphere at a rate to generate a significantly strong vortex is found to be 8kts.

As with the hair drier, a further increase in wind speed will likely help matters, but only up to a point. At about 15kts, too much air is warmed by too little and the dilution of the heat transfer prevents the strong vortex generation. Effective thermal generation reduces still further as the wind speed increases. Thus, on a cloudless hot blue day, indicating that the air in the lowest layer is dry and almost all buoyancy is generated by hot air, as the wind speed increases beyond 15kts thermals become broken by mechanical turbulence. In all cases thermals rapidly taper in strength approaching the inversion layer. In these circumstances the inversion in the UK is generally/routinely too low for comfortable cross-country.

The other input to buoyancy, however, is humidity. The blessing here is that any continued increase in wind speed increases the rate of evaporation of water. Any non-glider pilot will tell you the washing dries more quickly on a windy day and the same principle is used on air-blasting hand driers. From a gliding perspective, on strong wind days, when there are extensive active cumulus indicating instability, we find the majority of the buoyancy is generated by humidity. We find that we can climb in very strong thermals because the rate of evaporation from the ground is enhanced. Humid thermals are by their very physics more stable. Fortunately, in these conditions the additional mechanism of streeting becomes quite common, making into-wind legs easier.

Kevin Atkinson, Aim Higher lead coach

■ ***Next time: The primary modifier***

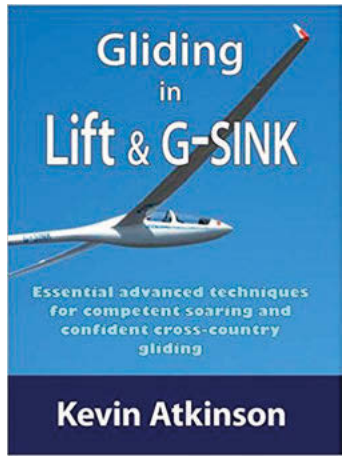
Aim Higher

■ Aim Higher courses are held at clubs by arrangement, run either by Kevin or by club coaches briefed on the training materials and *S&G* articles developed by Kevin and Tony Cronshaw.

Please contact *kratkinson@yahoo.com* if you, or your club, would like to participate in future Aim Higher courses.



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



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

HELP WILDLIFE TO HELP CLUBS

Dave Martin explains how clubs can enhance their airfield's environment for wildlife, while also attracting grants

MEMBERS of Derbyshire & Lancashire Gliding Club (and others) are lucky to own airfields in beautiful parts of the country, while we must never forget the reason for this is to pursue our sport. Amazingly, avian wildlife seems to tolerate what we do and even join in. Who can forget the joy of soaring alongside a bird of prey in a thermal, high in wave and on ridges? There are times when they seem to be flying, like us, for pleasure.

Out of necessity, clubs rent or own large areas of land that we do not always use for flying, such as those outside the peritrack. Current global thinking is about conservation. Airfields round the world have large grass areas; they all have their own problems depending on specific circumstances. Gliding clubs have few, if any, problems with airstrikes or jet engines to injest FOD (foreign object debris). Grass fields are habitats for a number of high-risk bird species. Overall, throughout the year the club probably uses our airfield for less than 25 per cent of the time. Large, flat, short-grassed areas provide hunting grounds for birds of prey. Long grass areas provide refuge for all sorts of mammals and birds.

I am not suggesting we abandon good principles of airfield management, but a little care and forethought can go a long way to enhancing wildlife's chance of survival and our own enjoyment of its existence.

CAP 772, Wildlife Hazard Management for Aerodromes, gives good advice for airfield management with wildlife in mind: *https://publicapps.caa.co.uk/docs/33/CAP772_Issue2.pdf*

In short, grass management at an airfield is like a garden, you have to look after it. Showing outside agencies we care may assist with grant applications.

Camphill

I have spent many years on gliding airfields and, with few exceptions, they are beautiful places. We have a duty to protect and preserve them. To do this there is help out there, if we look. The best thing the members did for Camphill was to buy the airfield; this would not have been possible without grants and donations. Now it is an asset we should cherish.

One of the lowest priorities on the club calendar is airfield maintenance; cutting the grass seems OK, but that is for landing on. As a committee member, years ago I was asked to take on the role of airfield officer and was allowed a budget that was never enough. There were over 1.5km of dilapidated dry stone walls around the boundary that required repair. I needed help so I approached the countryside experts at the Peak District National Park (PDNPA), who gave grants to farmers, and was put in touch with an environmental officer (EO). She

Gliding and nature recovery

THE UK Government is in the process of transitioning from a system of EU subsidies for land management to a new scheme, which will be fully operational in 2024. The new 'Nature Recovery Network' aims to echo nature by taking a joined-up approach and working collaboratively and strategically, building local networks so that environmental management becomes a more proactive choice, rather than an added afterthought.

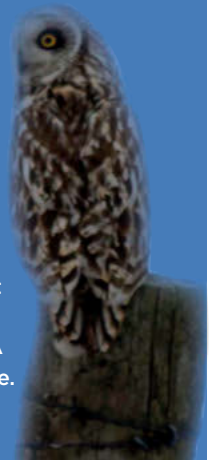
As a result of talking to Dave Martin about Camphill's experiences, the BGA has begun discussing the ecological value of our gliding airfields with Brian McDonald, Head of Natural England's Countryside Stewardship Facilitation Fund, and the role that our airfields could play as part of the UK's functional ecological network.

Club discussions began when Brian attended one of the Monday evening club development sessions and explained how our small-scale amendments could add up to significant benefit for our countryside.

Taking the time to recognise what we have, and then extending and enhancing where appropriate will be valuable. Add in considered management of our hedgerows, boggier areas and the margins of our airfields, and things soon add up.

We anticipate individual clubs connecting with local networks to tap into local expertise and relevant funding to support the work, as well as forming a UK gliding nature recovery network. Nobody yet knows exactly what shape this work will form over the next decade, but if you want to be part of it, please contact the BGA Development Committee.

Alison Randle



gave advice, helped me through the maze of grants and I was able to get funding towards the wall rebuilding.

Most grants come with conditions and farmers are reluctant to take the cash as they would have restrictions on the work, such as the method and materials used. For instance, dry stone walls have to be double skinned and properly capped, unlike some of the Derbyshire walls that are just piles of stone in lines.

The money for the grants was supplied by Europe and had to be spent or lost. This came to my notice when I was approached to spend £10,000 that laid unclaimed for walling grants – we managed! The EO moved on but, before she did, helped me to claim a Country Stewardship Scheme (CSS) award from Defra. This ran for 10 years and the EO's successor helped the club claim for another 10 years. This grant expires in 2024.

Over these years, I estimate the club has received more than £40,000 in grants of one sort or another. Buying the airfield can add tens of thousands to that figure, but we all know the bottom line is that these grant-making bodies do not give the money away, someone needs to work at it. They need a reason; we have to provide it.

In recent years local farmer clusters, as informal voluntary groups, have become a useful collaborative approach to local environment management. Four years ago ago my wife, Liz (the club's chairman), and I were approached by a neighbour, a self-employed farming consultant, to join a farming cluster. This is a group of local farmers, who are invited to workshops (now Zoom meetings) to discuss things such as grants and new schemes. *https://www.farmerclusters.com/* We are still exploring the options.

Apart from dry stone walls, the grants have supported flora and fauna conservation. Dry stone walls support rare native lizards and voles. The airfield: curlews, lapwings and skylarks. The woodland margins: many other wild birds, including birds of prey. The uncut grass margins: rare fungi. The club policy has always been to put the money in one central pot, but looking around and seeing better 'farming equipment' (tractors used to tow gliders and winches) gives a much-improved appearance to the premises. The extra money funds improvements across the board.

Over the past 10 years, there has been a marked change in the world's approach to our environment and conservation. I see a gliding club, like a farmer, as a user of the land to further an activity as 'land manager'. By presenting gliding activities to the public with a conservation hat on, we may be able to capitalise on that, encouraging more people to take part and stay in gliding?

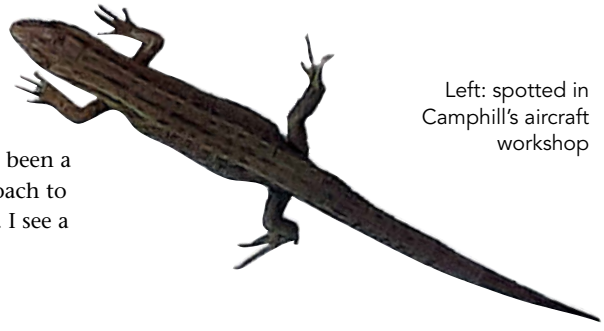


How to do it

It's simple, read this page and make a claim. *https://www.gov.uk/topic/farming-food-grants-payments/rural-grants-payments*

My advice

- First find a willing club member and support them. Decide what you want help with.
- Get help – find out who in your local council deals with the environment.
- Ask what grants are available, can you fit in with their demands?
- Learn to tailor your words to what is on offer.
- Find out if you are in a local farming cluster: *https://www.farmerclusters.com/* Who is the local rep? This interactive map lists them. Contact them, ask if you can join.



Left: spotted in Camphill's aircraft workshop

MIDLAND GLIDING CLUB AND NATURAL ENGLAND

MIDLAND Gliding Club (MGC) owns just over 330 acres of land on the south end of the Long Mynd. The airfield, clubhouse and associated buildings are on a flattish plateau at 1,450ft amsl with the land dropping down 800ish feet on the east and west sides, which provide the ridges we use. The land is mainly an SSSI (Site of Special Scientific Interest), which helps with attracting funds.

In the early nineties there was an issue about overgrazing on the whole of the Long Mynd, including the land in MGC ownership. The issue was resolved and an agreement entered into with the local grazier. By this time, the whole of the land owned by MGC had been fenced off from the surrounding common.

Having been in the Shropshire Hills Environmental Area scheme on my farm for some time, I suggested to Paul Garnham, then chair, that I thought there was a good chance MGC could join the scheme. We were accepted, joined the scheme and embarked upon heather restoration on parts of the land which had been forest and other improvements.

At that time we were receiving several thousand pounds per annum, which continued for two terms of 10 years each.

The ESA (Environmentally Sensitive Area) was superseded by the Environmental Stewardship Scheme, which we joined in 2014 and entered at entry level plus higher level stewardship. The higher level needs many prescriptions to achieve, but we scraped over the line.

Midland Gliding Club now receives a significant grant in return for modifying its approach to land management to align with the objectives of the Countryside Stewardship Scheme.

Charles Carter

HOW VIRTUAL WERE OUR CLUBS IN THE PAST?

BEFORE the internet, clubs used the notice board, envelopes for flying fees, printed newsletters and duty rotas to reach club members, because most of the time, most of the club members were not at the club. Then the internet arrived, and greatly underutilised it has been, too – complacency and passive communication crept in. In the past year or so, the conscious concept of the virtual club has been realised and utilising remote communication tools has once again been adopted, to great effect. Could it be that the bit in between has been the anomaly, and we're simply returning to a time of better quality communication with all our club members?

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

LIFE AFTER A PANDEMIC
WHAT DO WE KEEP?

AS I WRITE this in early June 2021, the delta variant is on the up and the level and duration of restrictions are not currently clear. I do not know the validity of the timing of this article, but even if the relative relevance is delayed, we would do well to collectively consider these topics and how we continue to deliberately engineer the vitality of our clubs.

Necessity is the mother of invention and there has been rather too much necessity in the past year for most people's liking. However, the ever-creative volunteers running clubs have risen to the challenge with some great innovations. Several clubs are currently full and are now running waiting lists.

At a recent Monday evening club development session, we were discussing the practicalities around re-introducing flying activities for people new to gliding. One club chair explained how they are catering for first flights at the beginning and end of flying days in order to create greater physical and temporal distance from club members. It is working well and is a system that they are looking to continue.

Many clubs developed virtual coaching and training, and a few have been building their training video libraries – all of which, in addition to books, are supporting pilots to learn away from the club. There have been virtual clubrooms too. We can all agree that nothing can replace the joy of spending time at the airfield, but adding these virtual facilities to our physical clubs enriches them and increases the overall training capacity of the club.

At many clubs, the admin associated with committee work has been modernised, with greater use of cloud-based document storage and sharing. This in turn has improved the quality of succession planning as handovers will be less onerous in the future. On the club resilience front, should a committee member suddenly be unable to fulfil their role, the documents and notes about their work are available so that their work can be covered – mitigating the related risks for club operations.

Similarly, many club systems have become more automated. In addition, these developments are reducing workloads for busy committee members, freeing up mental capacity for creative thinking and strategic planning. No doubt there have also been innovations at your club. Now that clubs are functioning more fully, it is a good time to reflect on which of these innovations will continue to serve.

There is a cultural opportunity to be grasped too. We are social animals, so the nature of social interaction is fundamental to any of our shared activities. The term 'imaginising' was coined to describe the way that people in an organisation create that organisation each time they interact with it, by imagining what it will be like when they get there and anticipating how they will behave.

If people imaginise their club differently, and change their behaviour accordingly, then the nature of the club changes. With better quality communication, greater engagement and a 'can do' approach, our clubs have vitality and buzz; the sort of place people want to join and want to remain involved with.

Re-engaging volunteers

There have been some great flying conditions since restrictions began to ease in the UK, but gathering people into indoor working parties with communal meals has not yet been possible. There has necessarily been caution around how club members can help out around the place. However, there is a great deal of good will – perhaps more than ever before. Remembering that the quickest way to disengage a volunteer is not to ask them to join in, now is a great time to capitalise on the enthusiasm. Similarly, if you are a club member wanting to do something, don't wait to be asked, go ahead and suggest the solution. Your club committee will be delighted to hear from you.



Flying conditions have enabled some great flying since restrictions began to ease (Jordan Bridge)

JUGGLING ACT

BGA CEO Pete Stratten reports on a world of moving goalposts

THESE are interesting times. Not long after encouraging a strong flow of applications as part of discussing plans to complete the SPL conversion[1] project, the CAA has announced its intent to extend the pilot licence conversion period by 24 months, ie to 8 December 2023. For many reasons it would have been very helpful if the CAA's plans had been shared earlier and discussed.

The main issue behind the extension is that over the coming year or two the CAA intends to review and transform the UK's confused private pilot licensing system. For example, it cannot be helpful that there are four aeroplane licences with little compatibility. As the review progresses, the BGA will ensure that it is closely consulted via its team of subject matter experts on CAA ideas that could impact sailplane and TMG flying and training. Meanwhile, the self-regulated BGA pilot and instructor system continues, as does support where required by many SPL holders and clubs via the BGA DTO system. There will be more to report in due course.

The near total shutdown of the passenger carrying airline industry during the Covid pandemic has slowed the pace of airspace change proposals associated with the Airspace Modernisation Strategy (AMS). Government funding and light at the end of the Covid tunnel is now encouraging airports to restart their airspace change work. The BGA is involved in related conversations with the CAA, NATS and the airspace change oversight group, which aims to co-ordinate the 21 or so airports' airspace changes.

One of the near-future major challenges is that the AMS is being redrafted – fortunately this time with stakeholder engagement – while airspace is being redesigned and concreted in place under outdated legacy design and segregation principles. We have previously described the emergence and importance of the RPAS, or drone, industry but noted temporary danger areas (TDAs) are unsustainable. The airspace classification review, launched by the CAA several years ago, appears to have developed into a regional airspace review. Part-ATS has the potential to significantly expand the amount of lower controlled airspace.



BGA instructor course trainees and instructors at Portmoak in May

The BGA, working with the GA Alliance, is pressing for modernised airspace design principles, policies and flexible integration that maximise GA's uncontrolled, but not necessarily unseen, access to airspace. With huge change coming, what will the UK's airspace look like in the future? It is a great question that neither the CAA nor NATS can currently answer. Having persuaded NATS to contribute, Steve Noujaim (BGA airspace committee and APPG GA airspace group lead) is involved in a collaborative piece of work to produce a picture of what a good outcome might look like.

Priorities

Talking of strategy, some time ago the BGA worked with clubs and individuals to identify BGA priorities in support of the membership over the coming decade or so[2]. Strategies are important, but delivery is key. Our Fit for the Future work is helping us to understand what we need to do, when and how, including budgetary constraints. The topics currently include marketing and membership, instructor training and development, safety, pilot certification and licensing, governance, and minimising regulatory intervention.

By way of one example, instructor numbers are critically important to clubs and membership growth. Unfortunately, the training course structure and delivery is overly prescriptive. In response, overseen by Mike Fox and Colin Sword, we have successfully trialled a new, flexibly delivered instructor course this year that will be ready to roll out by the end of the year. We are also considering our contingency response to a background of current and forecast demographic, societal, regulatory and economic issues, with the aim of ensuring that BGA support remains effective, relevant, and financially viable. That's quite a juggling act in a world of moving goalposts!

Following several years of background work, including influencing basic law, the BGA is now positioned to take on delegated authority for regulated gliding activity. We are pleased to be working with the CAA to deliver its project 'T5 – delegation to the BGA'[3] by the end of 2021.

And finally in this update, Richard Brickwood, a Cambridge GC member who is currently serving on the Executive Committee, is looking at a sustainable future and BGA sponsorship. An article will appear in a future issue. We would be delighted to hear from anyone who would like to contribute to this excellent initiative. Richard can be contacted via the BGA office.

[1] Search 'BGA Sailplane Pilot Licence Conversion' or *https://members.gliding.co.uk/pilot-licence-conversion/*
[2] Search 'BGA Strategy' or *https://members.gliding.co.uk/library/policies/bga-strategy/*
[3] Search 'CAA CAP 2146'















This page:
❶ Dartmoor's Ed Borlase looks happy after his Silver height

❷ Andy Aveling and Garry Coppin in their Arcus, starting to roll on an aerotow during Lasham task week (David Edwards)

❸ David Gladwin resolos at Buckminster, with instructor Phil Sturley

❹ Luke Burks enjoys a celebratory beer at Crowland after his first solos in the Grob Twin and then the Astir, bagging a Silver height gain in the process

❺ New launch control at North Hill

❻ Banbury's Paul Waghorne completes his FI test with Mike Fox (Pete Stratten)

❼ Tony Limb shows how a duty pilot should complete his duties, at Banbury (Pete Stratten)

Facing page:
❶ Storm clouds grow on another showery day at Lasham (Jordan Bridge)

❷ Newly-restored Auster AOP6 visits Cotswold GC on 24 June. It was exactly 75 years from when it left Rearsby on its first flight for delivery to Aston Down (David Breeze)

❸ SGU's BI course trainees and instructors at Portmoak in May

❹ Graham Calloway drives BWND's recovery Land Rover

❺ Alec Thompson happy at work on BWND's winch

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




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CLUB NEWS

AGC ANGLIA (WATTISHAM)
WWW.ANGLIAGLIDINGCLUB.ORG.UK
520739N 0005722E
MOST pilots have now returned to solo currency flying and there is a progressive, but controlled, move back into single-seater flying. We have also welcomed a number of new military members, which is very encouraging. Our Condor sessions have now stopped, but they served us well and we may well return to Condor over the winter months when the weather isn't so kind. On that note, the weather during May has been variable, with heavy April showers coming a month late, which has been rather frustrating. Finally, congratulations to Steve Berry, who passed his Cross Country Endorsement in between the showers in early May 2021.
Simon Ginns

AGC WYVERN (UPAVON)
WWW.ARMYGLIDINGCLUBWYVERN.COM
511712N 0014700W
AFTER a difficult early spring, Wyvern has been playing catch-up. We started post-Covid gliding with a comprehensive and structured safe return to flying programme to regain recency for members – all successful. We have retained five very keen juniors through the darkness and, from mid-April, started delivering five-day gliding foundation courses for Adventure Training Group (Army), with six planned for the year. Two have been successfully completed, with a clutch of first solos. Other courses are planned for wounded and injured servicemen, sponsored by the Air League, and a flight evaluation course for ETPS. A busy summer ahead.
Paul Jessop

BANBURY (HINTON IN THE HEDGES)
WWW.BANBURYGLIDING.COM
5204355N 00118784W
OUR junior pilots have been progressing brilliantly. During our first task week of 2021, Katie Newbrook and Lilly Moffitt are now solo in the club's Astir CS, with Oliver Ramsay whizzing around in the Discus. Mick Boasman completed his Silver distance, 100km speed diploma and five-hours. Paul Waghorne attained his flight instructor badge. Well done to all for these great achievements. The Hinton midweek posse is very active at the moment, with plenty of opportunities for tasks. Our second task week is planned for the first week of August.
Gary Newbrook

BANNERDOWN (RAF KEEVIL)
WWW.BANNERDOWN.CO.UK
511858N 0020631W
FINAL details are being put in place for the Inter-services in July. Mike Woloschuk has completed his Bronze, Max Gould, Jonathan Rowney and Theo Nellis have converted to the Discus. Theo and Max have also completed 100km triangles. We said a sad farewell to a much-loved lifetime member and held a BBQ to celebrate the life and engineering feats of Merv Ridout, raising money for the Wiltshire Air Ambulance (see obit p71).
Alison Arnold/Debb Hackett

BATH, WILTS & NORTH DORSET (THE PARK)
WWW.BWND.CO.UK
510742N 0021445W
SOMETHING close to normality has returned to The Park, with a crop of new and re-solos, including Matt Oakes, Mark Smallwood and Alex Haines. Gavin McMullen managed Silver height, duration and distance from one winch launch. People are busily completing Bronze exams and Cross Country Endorsements. John Garland clocked up the club's first cross-country with a 205km out-and-return to Ledbury. Tim Fletcher and Jim Hasker renewed their instructor ratings. John and Julie Hull have hosted our first BBQ of the year. We have been saddened to hear of the death of our friend and member Dick Dixon (see tributes p20).
Chris Basham

BIDFORD (BIDFORD)
WWW.BIDFORDGLIDINGANDFLYING CLUB.CO.UK 520803N 0015103W
THE exceptionally wet weather during April/May resulted in our field being waterlogged and all gliding being suspended until 29 May. Our competition is scheduled to start on 29 June, and we are praying for a good week. Work has started on refurbishing our clubhouse, but there is still a considerable amount of work to be done before it is completed.
Mike Pope

BLACK MOUNTAINS (TALGARTH)
WWW.BLACKMOUNTAINSGLIDING.CO.UK
515848N 0031215W
COMMITTEE, tug pilots and instructors have all worked hard to get the club flying: since 1 May the club opened Friday to Monday inclusive. We also started trial lessons on these days, which can be purchased and booked directly via our website. Thanks to Chris Short for this. Additional flying days are called for members when good conditions are forecast. Members seized the opportunity with currencies regained and several good height gains and cross-country flights. It's encouraging to see several new members. We were delighted to welcome an expedition from Oxford. Martin Brockington is leading a team to return our second Pawnee to serviceable status.
Mike Codd

BOOKER (WYCOMBE AIR PARK)
WWW.BOOKERGLIDING.CO.UK
513642N 0004830W
MAY'S weather was disappointing, but members still achieved significant flights – Howard Joseph did two 500km flights, one to Machynlleth and the other to Welshpool, and came back with some great pics of Welsh mountains. We have resumed trial lessons and courses, and have been welcoming visitors to our temporary base at Chiltern Park. Evening groups have also restarted on Tuesdays, when the speciality is aerobatics, and on Fridays.
Jane Moore

BORDERS (MILFIELD)
WWW.BORDERSGLIDING.CO.UK
553514N 0020510W
DURING the latest lockdown, members had Wednesday evenings livened up by a quiz night or a general discussion via Zoom, and Colin Sword continued his excellent series of Bronze training sessions. When the restrictions eased, the club hosted a flying week, postponed from Easter, with several long cross-country flights achieved. Tony Brown managed two out-and-return flights in April: one to Haddington near Edinburgh, and another to Newton Stewart, which has thrown down the gauntlet! We've seen two young pilots going solo since then: Ben Howlett and Aaron Ford, both 16; and Max Fawcus (solo last summer), has achieved his Bronze badge already. Congratulations to them all.
Beatrice Ashley

BRISTOL & GLOS (NYMPSFIELD)
WWW.BGGC.CO.UK
514251N 0021701W
PROPER flying recommenced on 29 March for experienced pilots, with normal service

(Left to right): maintaining social distancing on Army basic course **at AGC Wyvern; Banbury's** two newest solo pilots, Lilly Moffitt and Katie Newbrook (Dave Bramwell); solos at **Borders** for Aaron Ford, with instructor Bill Stephen; and Ben Howlett, with instructor Phil Marks






for other members resumed in April. Larry's first dedicated learning week and all-inclusive courses restarted. April dished up many decent days, which was good because May disappointed. Mike Fox visited to run a C-module course. Pete Bagnall is looking forward to the D-module. Numerous pilots made SPL conversion applications. As I write this, Andy's masterclass progresses. I was able to watch two landouts live as I wrote this. Despite efforts by the chairman, the cafe project stalled, terribly disappointing news. New varios were fitted to the Baby Grob and LS4.
Greg O'Hagan

BUCKMINSTER (SALTBY)
WWW.BUCKMINSTERGC.CO.UK
524912N 04228W
OUR flying has taken off again with new solo pilots, Mark Rodgers and Henry Brown, and a resolo after 12 years for David Gladwin. Our entrance road has been completely resurfaced with 150 tons of gravel, with thanks to Hazard's farm for their contribution. We have a new retrieve buggy on order and expect driving lessons any day now. Membership renewal has gone well, and our treasurer's smiling as we got through the operational year in the black despite being 1,000 launches down. Our CFI Lyn continues to get as many people flying as possible. Hopefully by now Covid guidelines are a thing of the past.
Danny Lamb

BURN (BURN)
WWW.BURNGLIDINGCLUB.CO.UK
534445N 0010504W
WITH lighter restrictions, our instructors have consolidated their recency and 17 of our pilots have regained solo status. Neil Bale completed his Cross Country Endorsement and Mike Cursons tackled his first 50km successfully. Neal Shead completed his BI rating and while membership renewals are down slightly on last year, encouragingly, we have several new members now. We're planning to fly 50 junior members of the Air League in late June and have a cross-country week at the beginning of the month. Our new simulator is operational and will be a welcome addition to our training capability. We are responding robustly to threats posed by airspace consultations.
Neil Bale

CAIRNGORM (FESHIEBRIDGE)
WWW.GLIDING.ORG
570613N 0035330W
FESHIE has bounced back with a successful effort of members to get back to currency. The flying thus far has been cracking and we are thankful to see the tops of our mountains again! A flying week was had and a successful, if restricted, Mayfest; thanks to all who came. Congratulations to Stewart Hills (Silver height and distance). Thanks to our inspectors Nick N, Dave W, Pete T, Craig C and Ian C for keeping the fleet tip top; Phil H for our flashy new functional website; Andy F for keeping on top of the general maintenance and Gabby T Covid-19 policing. The Feshie spirit never faltered!
Jordan Thomson

CAMBRIDGE (GRANSDEN LODGE)
WWW.CAMGLIDING.UK
521041N 0000653W
WE ARE now well and truly back to normal summer operations with great demand for training and our one-week courses. One or two members have been catching up on their winter maintenance, but many have been off cross-country flying (when the weather remembers it's meant to be summer). A recent aerobatics course has proved very popular, with several members achieving the standard aerobatics badge. So, with fingers crossed, we look forward to the Gransden Regionals running from 7-15 August and to our in-house cloud rally running from 21-29 August.
Chris Davis

COTSWOLD (ASTON DOWN)
WWW.COTSWOLDGLIDING.CO.UK
514228N 0020750W
APRIL and early May offered superb soaring weather and Austin Rose and John McWilliam flew an out-and-return to Snowdon. Austin's also to be congratulated for his first 300km in his Discus. Sadly, our office manager was injured in a serious car accident. We wish her a speedy and full recovery. Our older K-21 is in Slovenia for full overhaul and refinishing. We have an excellent K-21 on loan from Dunstable for our five-day courses, with David Taylor, our summer winch driver working to facilitate weekday flying. We are hosting the Inter-university task week during July, plus the Junior Nationals and Cotswold regionals during August.
Frank Birlison

CRANWELL (RAF CRANWELL)
WWW.CRANWELLGC.CO.UK
530231N 0002936W
THE club's made steady progress as the Covid-19 regulations relax. Simon Ridley, an RAF Typhoon pilot, was sent solo by fellow Typhoon QFI Jon Ravenscroft. Sean Link and Kelvin Ware have converted on to the club's Discus, and Ross Craney has converted on to the LS8. Our tug is back online after the prop was serviced. We welcome Nottingham University GC back into the fold after a year's long absence. The "GoSolo" scheme for RAF service personnel is proving popular and keeping the instructors busy. Regular Tuesday evening Condor sessions are now the norm, with a small band of members competing in places we only dream of.
Ian Webb

CROWN SERVICE (LASHAM)
WWW.CSGC.WEBSITE
511112N 0010155W
THERE has been a good start to 2021, with several new members – after a difficult 2020 that's great to see. All four aircraft are airworthy, and we've been making best use of the weather. We saw, for the first time in many years, three of our planes, the K-8, Vega and Twin Grob, going cross-country on the same day. It's a reflection of the ambition of members to expand from local soaring. A big thank you to the CSGC council and the aircraft group for working tirelessly to ensure we have planes to fly. We're looking forward to the rest of the season.
Paul Kavanagh

DARLTON (DARLTON)
WWW.DARLTONGLIDINGCLUB.CO.UK
531444N 0005132W
THE club is slowly getting back to some form of normality. We have started doing trial lessons and Silver courses, hopefully getting through the backlog of vouchers. On 29 May we started our flying week; the weather was hot and sunny, but the thermals were few and weak. However, we still had a good time. Congratulations to Emma Kendall on resoloing after her return from a six-month tour in the Falkland Island. Emma initially soloed at Nympsfield GC, but joined Darlton on taking up employment locally. Also, congratulations to Andrew Barton and Dave Sissions on completing their Bronze flying test and parts of their theory papers.
Barry Patterson

(Left to right): Lesley Lambourne, Sue Cutler and Alastair Macgregor, happy at **BWND** launchpoint; Mark Rodgers' first solo at **Buckminster**; **Cambridge**'s Rebecca Bryan adds a ClearNav II and vario to her HpH 304ES; **Crown Service**'s K-8 (Kate) visits a farmer's field in Faccombe (Paul Kavanagh)






DARTMOOR (BRENTOR)
WWW.DARTMOORGLIDING.CO.UK
503517N 0040850W
THE online AGM was a simple process and complete in a record 21 minutes, so good comes out of bad! Steve Lewis has become chairman; directors have rotated as per requirements and now onwards and upwards. We welcome James Flory to the instructor team. Congratulations to all those who re-soloed, Ed Borlase (Silver height) and those who are venturing further away from site. Congratulations also go to Phil Hardwick for completing a 136km to North Hill and back. The Rotax Falke from Northill was a welcome sight during May to help members with navigation and field selection training. Many members are planning flying expeditions this year.
Richard Roberts

DEESIDE (ABOYNE)
WWW.DEESIDEGLIDINGCLUB.CO.UK
570430N 0025005W
AFTER a slow start as lockdown was eased, we've seen a rapid increase in activity at Aboyne and we're now back fully functioning, with lots of new members keen to get out and about. We've reinstated mid-week flying to keep up with demand. We've had several notable flights and achievements: Roy Wilson and Charlie Tagg have both flown 500km tasks, Steve Kenyon-Roberts gained his Silver, Daniel Grycz and Justus Verhamme both went solo, and Tim Martin gained his Ass Cat instructor rating. We have another four Ass Cats and two IFPs in training. We're looking forward to delivery of our second Perkoz.
Steve Kenyon-Roberts

DENBIGH (LLEWENI PARC)
WWW.DENBIGHGLIDING.CO.UK
531239N 0032312W
AS I write this, we are taking advantage of the K-21 we are borrowing from Dunstable. We've had an excellent aerobatics course run by Guy Westgate, Ian Gallacher and Will Jones, where all eight students progressed through the standard aerobatic badge and beyond! We've gained more members and are becoming quite busy.
Chris Gill

DERBY & LANCS (CAMPHILL)
WWW.GLIDINGCLUB.ORG.UK
531818N 0014353W
CONGRATULATIONS to Chris Dawes and Warwick Horne (Gold distance, Diamond goal), Dave Richardson, Emily Lockwood and Mike Carter (solo), Richard Dance, DCFI (now an instructor coach), and Garry Lewis (re-instating his BI). We welcome back flying safety officer Bob Bollom. Our T-21 is ready for the Vintage Rally, and now has a CofG hook thanks to Colin Taylor. Dual training is back in full swing. Hopefully by August, access to the club through Abney will be restored. The lapwings are back nesting on a part of the airfield and four new chicks have been added to the fleet.
Dave Salmon

DEVON AND SOMERSET (NORTH HILL)
WWW.DSGC.CO.UK
505107N 0031639W
OUR summer courses have been snapped up, new members are training and trial lessons resumed in June. Early cross-country flying included tasks to Cornwall, Dorset and Wiltshire. A good clutch of Silver heights and duration, Bronze and Cross Country Endorsements have been claimed amongst the return to currency flying. Andy Batchelor resoloed after 27 years away from gliding, having returned to the sport last autumn when son Josh joined the club. Our new launch control is now in operation – designed, manufactured and kitted out by members.
Jill Harmer

DORSET (EYRES FIELD)
WWW.DORSETGLIDINGCLUB.CO.UK
504233N 0021310W
A ONE-WEEK course for pre-solo pilots in April was a great success with superb weather: Roger Newton soloed for the second time, after lockdown curtailed his progress, and later achieved his Silver height; and Ian Simmonds achieved his Silver duration. The first of two task weeks had decent weather for six of the nine days. Some members camped and there was a great social atmosphere in addition to some excellent conditions. We are pleased to welcome three new junior members. All were suitably impressed with their first winch launches. A further task week and a junior meet is planned for the final week in August.
Allan Powell

EAST SUSSEX (RINGMER)
WWW.SUSSEXGLIDING.CO.UK
505423N 0000618E
DESPITE the wet weather, we slowly got back to a nearly full flying programme by the end of May. In early May we ran the first of this season's flying weeks to allow four of our students to share two instructors for the week's non-club days. The work on upgrading our airfield has paid dividends as the drainage installed kept the ground very firm. Work on the second larger half is progressing at a pace. We must say a huge thanks to Jon Stiles, our ground engineer/instructor, who kept essential maintenance on our fleet to a very high standard.
Mike Jeater

EDENSOARING (SKELLING FARM)
WWW.EDENSOARING.CO.UK
544152N 0023506W
AS I write this, Edensoaring members are probably at an all-time low when it comes to gliding. After surviving lockdowns, we are now unable to operate due to an unresolved liability claim relating to an accident in 2019. Since the claim was made, we have been unable to get insurance! We are continuing to try and resolve this but, in the meantime, have decided to mothball the club. Our members are using other clubs and are delighted with reciprocal memberships. The financial help this gives us certainly eases the cost of mothballing. The support from members near and far has been brilliant, thank you all.
Keith Nattrass

ESSEX (RIDGEWELL)
WWW.ESSEXGLIDING.COM
520253N 0003330E
WE'RE delighted to be nearly back to normal and doing better than ever. We've welcomed several new members and hope they're enjoying their training as much as we are. As of writing, we've just completed our second flying week and on every day had superb weather except for the last day when we were thankful for our simulator. We are training at least one new instructor and some winch drivers, as well as improving our equipment and fleet to offer a first rate and safe experience for members in training. We're looking forward to some celebratory BBQs and maybe a club trip later in the year.
Cathy Dellar

HEREFORDSHIRE (SHOBDON)
WWW.SHOBDONGLIDING.CO.UK
521429N 0025253W
AS A small club notable events don't happen every day or week, but for HGC April and May have been an exception. We ran a successful course for four students, where

(Left to right): Emma resolos at **Darlton**; solo for Emily Lockwood with Peter Gray (Garry Lewis); and Dave Richardson with Dave Bailey (Dave Spencer), both at **Camphill**; Andy Batchelor resolos at **North Hill**; Nigel Potter (right) sent solo by **Essex** CFI Dave Hertzberg (Callum Hitchins)







John Middleton resoloed after an ATC solo in 1971 and he's subsequently completed a one-hour flight. Charlie Wilson (14) went solo, being towed by his dad. Bob Pye completed his Diamond goal; a Silver height for both Ian Orpe and Sheridan Chaffey. Plus, many other firsts for members. We are beginning to build up our cross-country score on the BGA Ladder with some excellent soaring opportunities around our stunning scenery.
Bob Pye

HIGHLAND (EASTERTON)
WWW.HIGHGLIDE.CO.UK
573508N 0031841W
OUR clubhouse has been transformed with new furniture and a fresh coat of paint, thanks to Toni and John. Good news, the Temporary Danger Area created for RAF drone flying in the autumn has been modified to not impinge on our operations. The retrieve vehicle has been fitted with a bespoke storage solution for glider seat backs, ballast, emergency rescue equipment, etc, thanks to Luke Arpino for a professional job. Our K-21 had a hole punched in the bottom of the fuselage, possibly by TOST rings flicking back at release, putting it offline. Thank you to the Twin Astir syndicate, which came to our rescue.
John Thomson

KENT (CHALLOCK)
WWW.KENT-GLIDING-CLUB.CO.UK
51123N 0004950E
MANY Kent pilots managed to get back to flying quite quickly, despite the spring weather. We hired a two-seater Grob, which was put to good use along with our K-21 fleet. At the time of writing, we are looking forward to summer weather and good flying over Kent and beyond. We're hoping our AGM can go ahead at the end of June. We have restarted taking bookings for our experience flights and courses, and interest is building, suggesting people are returning to normal life. To reflect the renewal of gliding after the pandemic shutdown we are taking the opportunity to renew our branding and club image.
Mike Bowyer

LAKES (WALNEY)
WWW.LAKESGC.CO.UK
570752N 0031549W
FLYING at Walney is getting back to something like normal. We are hoping to be able to fly voucher flights in the near future. Congratulations to 16-year-old Dude Kirby on going solo on 23 April. He was asked to land the K-21after one hour as the next club member required the glider. Five weeks later, on another thermal day, he completed his second one-hour flight. The club has enjoyed good flying conditions over the past month with thermal flights over the Lake District with cloudbase to 6,000ft. All gliders are back in the air, thanks to John Burdett and Geoff Baily-Woods. Hoping for better times ahead.
Peter Craven

LASHAM (LASHAM)
WWW.LASHAMGLIDING.CO.UK
511112N 0010155W
WE'VE been delighted to see the safe return of instructing with much student success. One of the most notable was Amy Maiden, who completed a Silver duration and height just prior to her Bronze flying test. May under-delivered in terms of weather, but there were some notable flights at the start and end of the month, with Andy and Garry completing an 800km flight and Piers Murray completing his first 500km in his LS4. British team training onsite has also meant a busy bank holiday weekend with well over 150 launches each day. Both national competitions at Lasham and international competitions further afield are fast approaching.
Jordan Bridge

LONDON (DUNSTABLE)
WWW.LONDONGLIDINGCLUB.CO.UK
515200N 0003254W
A BUSY time just ahead of what we hope is the final easing of restrictions. We've held our annual club forum via Zoom, as well as a vintage weekend, plus some minor work around the clubhouse and airfield. Most exciting news is that we have a new catering team! Sven and Hayley, aka Curiositea, opened their second location in our restaurant in June and are settling in nicely. The samples went down extremely well. The club has an established history of providing great food in its restaurant and we're certain Curiositea will keep the tradition.
Tom Pridgeon

MENDIP (HALESLAND)
WWW.MENDIPGLIDINGCLUB.CO.UK
511544N 0024356W
WE'VE had a very successful restart. Congratulations to James Lambert and Sebastion Stetco (solos), James again (converted to the K-8), and to Mike Spalding (Cross Country Endorsement). Welcome Nick Blake to our instructor roster after converting his Air Cadet rating to a BGA one. Our new bus has been converted into our launch point control. James Lambert has fitted FLARM aerials to the clubhouse roof and is setting up a webcam. Jeff Green ran a flying week brilliant conditions on every day. Many thanks to Jeff. The Rotax Falke completed its annual and ARC, with some work on fuel lines and fitting high intensity wingtip strobes/nav lights.
Barry Hogarth

MIDLAND (LONG MYND)
WWW.MIDLANDGLIDING.CLUB
523108N 0025233W
AS WE emerge from the lockdown, Andy Holmes and Mark Sanders have been successfully organising and encouraging training for new members by making full use of social media. Interest in our courses is strong and they're almost booked into early autumn, with some late availability. Rose Johnson, who has recently rejoined as a member, has been running cross-country courses and Simon Adlard has been running courses to enable members to obtain their cloud flying endorsement. New member and instructor Mark Butcher, who has relocated to our area, is a welcome addition to our rota. Congratulations on recently resoloing to Russ Attwood and Suzie Gunn-Russell.
Steven Gunn-Russell

NENE VALLEY (UPWOOD)
WWW.NVGC.ORG.UK
522612N 0000836W
FLYING has restarted, and the club's initial aim is to get all solo pilots back flying safely. The instructor team has been busy with check flights and almost everyone who had previously flown solo is now cleared to do so again. Pre-solo training is expected to restart soon, as will voucher and visitor flights, subject to available capacity and instructor availability. By the time this is published, it is expected that lockdown restrictions will be completely removed and we'll be back approaching normality.
Peter Valentine

NORFOLK (TIBENHAM)
WWW.NORFOLKGLIDINGCLUB.COM
522724N 0010915E
WE HAVE taken the opportunity of lockdown to refurbish our kitchen and bar facilities, which are now looking very inviting. The

(Left to right): **Lasham's** Amy Maiden after 5-hour (David Edwards); solos at **Mendip** for Sebastian Stetco, with Jeff Green (James Lambert); and James Lambert; Mike Newton presents Myles Russell with his wings at **Crowland**; Nathan Godding cuts off old bolts in **Rattlesden**'s hangar (Gary Western)







weather during the first few weeks of the season has been exceptional with high cloudbases and powerful thermals with phenomenal climb rates.Congratulations to Jack Jenner-Hall on receiving a grant from the Royal Aero Club; he has recently gained his standard aerobatic badge. Not to be outdone, Tom Hesp has achieved his Silver distance and by returning to Tibenham gained his 100km Diploma Part 1. He then spent time local soaring, but unfortunately missed his five hours by less than 15 minutes.
Adrian and Barbara Prime

NORTH WALES (LLANTYSILIO)
WWW.NWGC.ORG.UK
530239N 0031315W
IT'S been great getting back in the air. All of our solo pilots have had their check flights and are back flying solo. Our ab inito pilots are catching up with their training to progress to solo pilots. Our two new Half Cats are running the field, thanks to Ged Terry's training, helping to share the load with CFI Keith Lewis. Keith has also started training three of our members to become IFPs as part of the club's succession planning.
Ian Masson

OXFORD (RAF WESTON ON THE GREEN)
WWW.OXFORD-GLIDING-CLUB.CO.UK
515249N 0011311W
AS WE all get used to the distanced way of doing everything, Jonathan Edge and Henry Morris landed 50km away from everyone else at the club! Congratulations on your Silver distances. Silver seems to be the colour of the year so far, with Peter Boulton and Oscar Eldridge notching up Silver heights. We are preparing for, hopefully, a return to OGC's legendary social events, including celebrating the club's 65th year at WOTG. More details anon. Our friends at OUGC have just returned from a successful expedition to the Long Mynd. Let's hope 2021 continues to deliver and Silver turns to Gold.
Norman G Nome

PETERBOROUGH & SPALDING (CROWLAND)
WWW.PSGC.CO.UK
524233N 0000834W
WE'VE had a really good start with plenty of flying and cross-country flights. Congratulations go to Myles Russell (solo), Luke Burks (conversions to the Grob Twin and the Astir, and a Silver height), and to Ryan Millen (PPL). Ryan is now learning the intricacies of becoming a tug pilot and is starting his instructor's course soon. We had a visit from the BGA Junior Gliding Assessor, who has approved our application to become a junior gliding affiliated club. Overall, not a bad start, let's hope the weather continues – or have I jinxed it? Finally, our best wishes go to John Crosse, recovering from recent surgery.
Roland Pitch

PORTSMOUTH NAVAL (MIDDLE WALLOP)
WWW.PNGC.CO.UK
510858N 0013413W
AFTER Jordan's Lasham weather brief as I write saying this might be the wettest May on record we share everyone's May weather frustrations. Big congratulations to Jim Chapman and Chris Gibson on passing their Bronze exam and Jamie for completing his MGIR Level 1. April provided some good weather, with a bit of cross-country flying. Dan and Tony almost got caught short at Thruxton, but managed to scratch their way home. Barney's five-hour flight still eludes him, but he's yet to get as close as my four-hour 58-minutes some years ago.
Lee Allinson

RATTLESDEN (RATTLESDEN)
WWW.RATTLESDENGLIDING.COM
521001N 0005216E
PLENTY of flying getting done and, with the dedicated support of our instructors, most eligible pilots are back to solo. Ab initio training is gathering pace, and the bookable flying system is working well. The 'J' bolts which hold the cladding to our hangar are rusting through, one pierced the skin of a glider when it fell from the roof, so members have undertaken the task of renewing the 2,000 bolts; 500 done so far, so a few more to go. We are holding an NHS day to say thanks to local staff, comprising free trial flights, and we will also have the BGA sim onsite.
Gary Western

SCOTTISH GLIDING CENTRE (PORTMOAK)
WWW.SCOTTISHGLIDINGCENTRE.CO.UK
561121N 0031945W
OUR new Perkoz has arrived and will soon be flying. It's serendipitous as we have our newly-qualified instructors Matt Roberts and Jamie Dickson, and new member instructors Ron Smith and Roy Garden thirsting to fly it. Joining them are new BIs Wolf Rossman, Richard Lucas and Evan Skelhorn (Evan completing his Silver in April). Our CFI, Kate Byrne, also completed her FI(S) TMG rating. The grass-cutting team have been hard at it and the field looks luscious. A really big thanks to Malcolm Chalmers, Geoff King and Alan Gillanders, who did a brilliant job creating a profusion of outdoor tables and benches.
Sant Cervantes

SEAHAWK (RNAS CULDROSE)
WWW.SEAHAWKGLIDING.CO.UK
500509N 051520W
THE club has made the most of soaring opportunities since being allowed back into the air and we are back fully operating. Nic Baretta gained his Silver height and flew his first student as a BI. Tony Hogg completed his one-hour sortie, completing his Bronze and Cross Country Endorsement. Harry Callaghan's Silver distance attempt ended up on the deck, 46km away, for his first field landing. Moving into the new clubhouse and our hangar was successful so we can concentrate on the flying. The only issue is a problem with the control rod to the elevator on our Pegase, so the aircraft is away to be repaired.
Chris Bryning

SHAWBURY (RAF SHAWBURY)
WWW.RAFSHAWBURYGC.CO.UK
527927N 0026575W
THE club is now well established in Hangar 4, making the most of the tremendous facilities made available to us by RAF Shawbury. With the commencement of instructional flying and with our aircraft a common sight over the airfield and the local area, we've received a large number of enquiries from those interested in flying with us. This was helped by a familiarisation evening in April that attracted a lot of attention from RAF Shawbury staff. For trainee and novice pilots the airfield is a very safe environment; easy access to the launch point, long runways and unobstructed approaches. Congratulations Will Dean on your BI rating.
Geoff Catling

SOUTHDOWN (PARHAM)
WWW.SOUTHDOWNGLIDING.CO.UK
505532N 0002828W
APRIL showers were noticeably absent after the return to almost normal flying at Parham this year. Half the days flown during the month were when winds were from a northerly direction. This unexpected bonus attracted club members en masse, and some notable flights were recorded. On the very first

(Left to right): Ian Lawson (left) sent solo by Ron Smith at **Portmoak**; **RSGC**'s Liam Riley and Colin Haynes carry out pre-take-off checks; DG-500 among the Ranunculus at **Southdown** (Peter Holloway); Roger Newton receives wings from Peter Molloy at **Surrey Hills**






Saturday of the month, 10 cross-country pilots flew a total of 25 hours to various destinations with the aid of hill lift, including James Haley's five-hours. Behind the scenes, the work on the state-of-the-art classroom extension has been completed, and Southdown's long-term aim is to offer courses nationwide for instructor ratings and possibly NPLs.
Peter J Holloway

SOUTH WALES (USK)
WWW.USKGC.CO.UK
514306N 0025101W
HIGHLY regarded former member Stan Armstrong, now deceased, left a generous bequest suggesting that we have a "jolly good party". So, we did, with thanks to Tony and Claire Hooper for the catering. At the AGM Adam Deacon took over from our long-serving treasurer Derek Bennett; also, Mike Clee and Will Harley were elected, and Martin Capps was re-elected onto the committee. Chairman Enzo Casagrande said he planned a vote on whether members want to keep our ageing Pawnee or our new EuroFOX. Planning permission has been sought to rebuild our club hangar. More members have regained currency and are enjoying soaring again.
Stuart Edinborough

STRATFORD ON AVON (SNITTERFIELD)
WWW.STRATFORDGLIDING.CO.UK
521406N 0014310W
WE'VE had a busy period following the resumption of flying, with lots of members returning to currency. Thankfully we don't seem to have had any leave during lockdown and have had several new members join us, which is great. Our courses are fully booked. The May weather provided an opportunity to give the site a spring clean – thanks Chris, Liz and the others who helped. We've also fitted new LED lighting in the clubhouse – much brighter (and importantly) cheaper. Our annual expedition to Sutton Bank delivered plenty of flying in between the showers and we're flying much more.
Andy Balkwill

SURREY HILLS (KENLEY)
WWW.SURREYHILLSGLIDING.CO.UK
511820N 0000537W
WE ARE delighted to be back flying and have begun making inroads into the large backlog of air experience flights. Sam Coole has built a fantastic simulator and it's being used to gain stick time by a number of people – a great addition to the club. Andrew Strand bought a T-49b Capstan and had it stripped down and completely renovated. On 1 June it flew for the first time over Kenley – his family were there to see the historic first flight. After a seven-year absence, the cadets (or at least the cadet instructors) began to fly at Kenley in May. We welcome them back to historic RAF Kenley.
Chris Leggett

ULSTER (BELLARENA)
WWW.ULSTERGLIDINGCLUB.ORG
550819N 0065753W
THE province's second lockdown is almost behind us and the club is back into almost full swing, with just over half the members current. The AGM saw changes: site officer, sincere thanks to Jay, hello again to Kenn, and the club hon secretary; sincere thanks to Stephen, and welcome Martin Magee. Thanks to the committee and directors who have remained in post. There hasn't been any spectacular flying so far, just some local cross-country. Looking ahead, the restarting of air experience flying, summer courses and, hopefully, the Vintage Glider Club Rally at Bellarena in September are all being looked forward to.
Michael D Miskimmin

WELLAND (LYVEDEN)
WWW.WELLANDGC.CO.UK
522758N 0003430W
I WRITE this in early June, blessed with a warm dry spell for our annual flying week. Friends from Hus Bos, Ringmer, Wattisham and Wormingford have joined us for a fun week of pilot progression, cross-country exploits and sunburnt socialising. Congratulations are due to Finbar Billings (Silver duration, height and award); Brian Sutherland (Cross Country Endorsement and Silver distance); Dave Stringfellow (Bronze award, Cross Country Endorsement and Silver height); and Christian Fowler (Bronze award and Cross Country Endorsement), alongside assorted resolos, type conversions, tasks and landouts. Our east-end cabin is now fully fitted out and a new (to us) kitchen is being installed in our main clubhouse by our tireless gang of grafters.
Andy Burton

WOLDS (POCKLINGTON)
WWW.WOLDS-GLIDING.COM
535532N 0004740W
GOOD weather in April saw member flying back to near normal levels and this continued through May, when the weather allowed. Congratulations go to Irek ('Eric') Rudy for completing his Silver, and Philippa Wood, who resoloed with a soaring flight. Craig Scott and Jonathon Richardson have been working hard towards their Ass Cat status and Sandy Lloynd to BI. We are grateful to coach Tony Kendall for instructor training. Our Pawnee is back in service after a paperwork saga, which has involved tugmaster Mal Gibson in much effort. Entries are good for the 35th Two-Seater Competition, but there are still places for the friendliest gliding competition.
George Morris

YORK (RUFFORTH)
WWW.YORKGLIDINGCENTRE.CO.UK
5357100N 00111332W
FLYING operations are thankfully back in full swing and we have enjoyed some excellent spring soaring. We have started to welcome new club members and hope to begin flying members of the public again from June. We are closely following the progress of our very own Tom Pavis, who is flying as a member of the British team in the Czech Republic as a practice comp before the Junior Europeans in July in Lithuania. Honourable mention also for Simon Hawkin, another YGC member, who is crewing for Tom. Our congratulations go to Charlie Ball, who went solo at the age of 14, and to new member Pat Kaina on also going solo.
Andy Carden

YORKSHIRE (SUTTON BANK)
WWW.YGC.CO.UK
541338N 0011249W
APRIL saw a persistent polar air mass bring great soaring conditions eagerly exploited by our more experienced pilots with many 200-300km tasks. Tops was 505km by Rob Bailey in his ASG 29. We also returned to carefully scheduled instructional flying, allowing a first solo for Thomasz Rusin Rusec. A cold and mainly heavy showery May meant testing flying conditions. Nevertheless, many cross-country sorties were made, including Bill Payton and Rob Bailey turning Blackpool in Bill's DG-1000. Our regular visitors from Stratford GC also pushed the boundaries to make the most of the weather. A challenging month ended on a high, with Tomer Altman soloing a couple of days after his 14th birthday!
Ken Arkley

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



CLUB FOCUS

BANBURY

AT A GLANCE

Membership:
Full: £350
Student (under-25): £90
Junior (under-18): £70
Country: £115
Free trailer parking

Launch type:
Aerotow examples: £10 (1,000ft), £16 (2,000ft), £22 (3,000ft)
Private gliders pay a £3 supplement.

Club fleet:
K-13, K-21, Astir CS, Discus b, EuroFOX 912ULS

Instructors/Members:
16/69

Operates:
Weekends and bank holidays. Occasional weekday flying during the soaring season.

Contact:
Tel: 0333 044 0134
Email: *office@banburygliding.co.uk*
www.banburygliding.com

Long and Lat:
520136N 0011158W

what3words: chapels. mouths. hothouse

BANBURY Gliding Club is based at Hinton-in-the-Hedges airfield, with easy access from both junctions 10 and 11 of the M40.

The club operates at weekends and bank holidays throughout the year. In addition, we fly on several midweek days over the summer months when suitable soaring conditions occur. We also run expeditions to other sites.

Our home: Hinton-in-the-Hedges airfield was built in 1940 by RAF Bomber Command and was active throughout WW2. It is well drained and, with three grass and a hard runway, we can fly in most weather conditions.

The club was founded in 1966 as the Civil Service Gliding Club, based at Westcott. We moved to Hinton-in-the-Hedges Airfield in 1972 and became known as Aquila. In 2007, we changed our name to Banbury Gliding Club to reflect our relationship with the local community.

We are a Junior Gliding Centre and pride ourselves as a smaller club with a friendly atmosphere. Our clubhouse includes a comfortable lounge and a dedicated briefing room.

Banbury was one of the first UK clubs to operate a EuroFOX tug: through this reliable and economical tug we offer low-cost aerotow launching with a greatly reduced environmental impact. The club also has a share in a second syndicated EuroFOX. This serves as a back-up tug and provides a facility to undertake navigation training for members.

Our club glider fleet, from a K-13 to a Discus b, enables members to progress from initial training through to the most advanced levels of solo cross-country flying.

Whilst we share the airfield with other light aircraft traffic and Hinton Skydivers, we have clearly defined operational areas so that we are not restricted by parachuting activities. This, along with our central location and an overhead 6,500ft airspace limit, helps us to provide a wide range of training and soaring opportunities for all our members, whatever their experience.

Peter Finch

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

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Aim Higher
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Schools and Colleges Lead
Yvonne Elliott - *via the BGA office*

Operations

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Airspace
Pete Stratten

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/

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

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WOODEN ERA IS KEPT ALIVE

Joey Beard tells the story of the Historic Flight that sparks nostalgia from the thousands that benefited from gliding scholarships



Slingsby Prefect (Peter R March)

CONVENTIONAL GLIDERS WERE WINCH LAUNCHED BY A SINGLE-DRUM WILDE WINCH, WHICH STARTED LIFE AS A WARTIME BARRAGE BALLOON WINCH

THE 621 VGS Historic Flight (HF) was formed in 2003 and consists of current and past members of 621 Volunteer Gliding Squadron, together with other like-minded individuals, who united to preserve and operate former Air Training Corps (ATC) gliders from the 'wooden era'. The fleet often sparks interest and nostalgia from the thousands that benefited from gliding scholarships as part of their childhood.

The HF boasts a fleet of wooden gliders, all once operated by the ATC. These include: the Slingsby Sedbergh – WB922; Slingsby Grasshopper – WZ828; Slingsby Swallow – XS651; Slingsby Kirby Cadet Mk III – XA310; Slingsby Prefect – WE992; and Slingsby Venture – ZA656.

The Venture, fondly referred to as Verity, is operated by a smaller group within the HF, named the 621 VGS Venture Syndicate, due to the expense of operating a motorglider. Verity was the star of my film *Airborne,* made at Bristol & Gloucestershire Gliding Club (BGGC) in 2018, and is now based at the Vale of White Horse Gliding Centre (VOWHGC) at Sandhill Farm.

All of our aircraft are maintained and operated to BGA standards. Members pay an annual subscription and pay to fly the aircraft, the proceeds of which are used solely to fund the upkeep. The Sedbergh was stripped and recovered in 2013, by members, with the assistance of Dave Bullock. In 2016 it won the Best Civilian Aircraft award at the Royal International Air Tattoo.

The HF operates separately from 621 VGS itself, currently from BGGC. The conventional gliders were winch launched by a single-drum Wilde Winch, which started life as a wartime barrage balloon winch. Since flying at BGGC, the gliders have enjoyed use of the Skylaunch. Period Land Rovers complete the setup, providing glider and cable retrieves.

The HF has always operated as one big family and enjoyed 13 good years at Hullavington, sharing the old WW2 hangar with the Vikings from both 621 and 625 VGS. Being able to remain rigged in this environment was key to their upkeep and survival.

Sadly, on sale of the airfield to Dyson, the HF was required to leave and, in August 2016, the HF said a bittersweet farewell which included a flypast from the Red Arrows (one of whom began his flying career with 621 VGS).

After a short time stored at 621 VGS's new home, Little Rissington, the HF found a home at VOWHGC, Sandhill Farm in 2017 with hangarage available for the flagship Sedbergh. Whilst the HF enjoyed a couple of good years here, it was decided that the field was just too short for effective winch launching and the search for a new home began.

Rite of passage

Due to the Air Cadet Gliding 'pause', which began in 2014, several 621 offspring were unable to partake in their gliding scholarship rite of passage at 621 VGS and secured cadetships at BGGC.

To note, there are three generations of glider pilots within the HF family. As a result, an ever-growing group of 'the family', often referred to as the 'Hullavington Mafia' has settled at BGGC. It was therefore decided, with hangarage availability and the continuation of the family spirit enjoyed by the HF, this would be the next home for our beloved fleet and the move took place last summer. Despite the pandemic, the HF enjoyed multiple summer days of flying and is thoroughly enjoying its new home. The HF is incredibly grateful to chairman Andy Davis, the committee and club members for the warm welcome received.

Unfortunately, prior to the move and following the first lockdown, it was discovered that the Sedbergh had suffered damage to its wings with the fabric having



621 Historic Flight (Al Stacey)

separated from the majority of the ribs under the starboard wing. The realisation that we would have to break into the perfect fabric to replace it up to the aileron was heart-breaking. After a phenomenally successful crowd-funding campaign in summer 2020, the Sedbergh is now in repair and it is hoped will be soaring over the Nympsfield ridge later this summer. An interesting note, rumour has it that the RAF actually misspelt Sedburgh in its infancy due to a typographical error by an RAF Clerk and whilst the more commonly named 'barge' should have been named after the Yorkshire Village of Sedbergh, as it is now correctly spelt, it is thought that the correct historical spelling for the RAF aircraft is, in fact, Sedburgh. We'll set the gliding communities mythbusters off on that one, I think!

The 621 VGS Historic Flight would not be in existence if it was not for the help of Al Stacey for loan and donation of gliders, D A Bullock for his technical assistance, Rick Fretwell for servicing support and Adam Clarke, who has excellently led the HF since the beginning and continues to do so. Servicing is also undertaken by members of the HF.

The 621 HF is really proud to be taking a lead on the organisation of the Vintage Glider Club Rendezvous between 20-27 July 2023 at BGGC. This event will see approximately 40 vintage gliders, with between 125-175 visiting pilots, crew and family. The International Rally takes place at Cotswold Gliding Club the following week.

The HF currently has 29 loyal members, who contribute annually to the costs of keeping the fleet airworthy and hangared. However, for a variety of reasons, only 25 per cent of the membership is able to actively participate in operations at Nympsfield. Additionally, only a small proportion of the HF members made the transitional leap from Air Cadet gliding to club gliding (we're working on that!). This has meant that a large increase in operational costs has been difficult to bear and therefore the HF is currently looking into ways to secure its future.



Joey Beard with her dad in the Slingsby Sedbergh

● If you are interested in becoming part of the HF or supporting it in anyway, please contact Joey Beard at *joanna.beard@hotmail.com*

■ It's marvellous to read about the unique 621 Historic Flight, with its complete collection of ATC gliders, *writes Andrew Jarvis*. I especially love the 1950s/60s silver colour scheme of four of the six gliders in the fleet.

The conundrum of spelling Sedbergh has never been a problem for us in the VGC, as we just call it the T-21!

When you read this, two VGC rallies will have happened – The Park, and Camphill – and two will be rapidly approaching: Sutton Bank, and the postponed UK National Rally at Bellarena, Ulster. The idea is that you 'just' hop across the Irish Sea, from one to the other! Sutton Bank, like Camphill, is a hardy perennial of the VGC calendar, but this will be just our second visit to Bellarena – the previous time was in 1995. Next year's UK National Rally, only eight months later, will be at Usk (South Wales Gliding Club).

Yes, in the VGC, we do try to get out and about... with the Usk rally, we will have held events in all four countries of the UK since 2018, when we were at Portmoak. We will soon have flown at the most easterly, and most westerly sites in the UK! (Dover and Bellarena). On the international side, we were all dismayed that the two German events, at Nordhorn and Achmer, were finally killed off by Covid. However, 2022 offers a unique trip to Ferrara (Italy), and Celje (Slovenia), for the Rendezvous and Main Rally, respectively. To find Slovenia, just turn right on leaving the top end of Italy – you can't miss it! Please check the VGC website for details of these great events.

2021 RALLIES

■ Sutton Bank Slingsby Rally, 27 August-3 September
■ UK National Rally, Bellarena, Ulster, 6-10 September

2022 RALLIES

■ UK National Rally, Usk, 27 May-3 June
■ VGC Rendezvous, Ferrara , Italy, 21-30 July
■ 48th VGC International Rally, Celje, Slovenia, 1-9 August

■ *www.vintagegliderclub.org*

SO NEAR AND YET SO FAR...



Steve Lee phones for additional help to free John Archer's ASW 20 from a locked field

Bidford GC's John Archer shares a tale of how things never go quite as you might expect when landing out

I HAD RECENTLY returned to gliding at Bidford, having flown mainly power for some years. I'd missed the challenges that gliding gave and was keen to build up cross-country skills in GKB, my recently purchased ASW 20.

It was a fine late summer day. Bill Inglis, having a day off from ripping up 300+km cross-countries in his Antares, suggested: "How about a bit of lead and follow?" Yep, a great idea – Bill with Chris Vincent in the club Janus and then me following in GKB. What could go wrong?



Retrieve team (left to right): Andres Tamme, Tiago Santos, Judy and Steve Lee

Bill and Chris launched first and disappeared westwards. I launched shortly afterwards into a decent soaring sky and set off in pursuit, chasing the Janus down.

Where were they? I pushed on – saw a wing glint – there they were, a fair bit higher, but it looked fine. I was losing some height but decided to keep pushing on and, anyway, there was lots of lift around.

And then there wasn't.

Too low on a good thermal day and out of lift. And as Bill and Chris floated high above, watching with amusement, I went into clenched-stomach field landing mode.

A scan around showed lots of small fields. Drat! But there was a good-sized one – into wind – pasture – no livestock or wires that I could see. I planned the circuit trying not to get too close – high key about right – there's a road alongside – field gate – farmhouse next door – looked like it might be OK.

The landing was fine on what turned out to be a nice smooth field, rolling to a halt about halfway down. So that went as well as could be expected, even though it shouldn't have happened in the first place.

I phoned in to Bidford and then checked the field exit. Oh dear, the gate was fastened

shut with what looked like an anchor chain and an industrial-strength padlock. Maybe it was possible to lift the gates off? Quick check – welded caps on the hinge pins – no chance there. How about help at the farmhouse? All locked up and no-one there. Clearly not a working farmhouse anymore.

I walked down the road to a couple of cottages. No-one had a clue who owned the field. A young man on a bike avoided me – who could blame him? – a strange man in an odd hat on a lonely country lane. So, no help from the locals, then.

Nothing for it but to return to the glider and wait for the retrieve crew. Andres Tamme and Steve Lee soon turned up, parking the trailer just outside the gate. They, too, were impressed with the gate lock, but couldn't figure a way of releasing it. We pushed the glider down the field and there it sat, a few feet from the trailer but completely cut off. We started to de-rig anyway, but – hang on – where were the wing supports? Not in the trailer. Ah, they were still at Bidford.

Not a good discovery.

As we couldn't open the gate, and with no other field exit, we were going to have to manhandle the glider over it. For that we needed some more help – and the wing supports. A few more phone calls later and Judy, Steve's wife, came along as she and Steve lived nearby. Tiago Santos then arrived from Bidford – complete with wing supports. Excellent!

Except they weren't GKB's wing supports. It turned out they belonged to Frank Townsend who, perfectly reasonably, had left them out whilst off happily soaring for the afternoon in his Glasflügel.

Ah well, couldn't be helped, and GKB still had to be derigged to go over the gate. Frank's wing supports did their job and off came the wings. Judy found a dog blanket in her car; I found some old sheets in the trailer and on top of the gate they went. With all five of us lifting and heaving, we managed to get the wings over the gate and into the trailer. The fuselage was more tricky, but with a lot of precarious steadying and balancing we just about managed. Phew!



Landing out in a nice smooth field with a gate… locked with an industrial-strength padlock

So that went well until, lining it up with the trailer, thinking the dangers had passed, I scraped the underside of the nose on the road surface.

Eventually it was all in and secure, then back to Bidford to apologise to a perplexed Frank, who had landed earlier to find his wing supports had disappeared and couldn't work out who had nicked them. He was remarkably understanding.

And then – relax over a few beers.

As they say, I learned about gliding from that. Most of all, that gliding is certainly a true team sport. A very big thanks to Andres, Steve, Judy, Santos – and Frank.

THE FUSELAGE WAS MORE TRICKY, BUT WITH A LOT OF PRECARIOUS STEADYING AND BALANCING WE JUST ABOUT MANAGED

■ 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*

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THE TROUBLE WITH TURBOS

The BGA safety team looks at how gliders with retractable engines still have field landing accidents, and what to do to avoid them

RETRACTABLE engines are increasingly popular options for cross-country gliders. They let pilots reach and explore soaring grounds and cross gaps between areas of lift; and, if sufficiently powerful, they allow the glider to be launched independently. They also reduce the likelihood of having to land in a field and the risk and inconvenience that carries.

It's therefore surprising that gliders with retractable engines are slightly more likely than other gliders to suffer serious damage from a field landing accident. Just over 20 per cent of the UK's private glider fleet now has a turbo, self-launching, jet or electric sustainer engine, yet such gliders have in recent years accounted for around 23 per cent of serious field landing accidents to privately-owned gliders, with seven accidents in the past two years alone.



Almost all of these accidents happened because the decision to use the engine was left too late and the engine could not be started in time to avoid an inadequately planned field landing. Sometimes the glide performance was affected by the extended propeller, or the increased workload caused impaired judgement or loss of control.

Glider engines fail – and, perhaps more often, they fail to start. They are generally less developed than motor car engines; they are used less regularly, vibrate more, and have to start under load. Flat or cold batteries may fail to turn them over; and complex starting sequences are easy to get wrong. It's crucial not to depend upon them, and to plan for their failure – as attributed to record-breaking US pilot Jerry Kaufman [1]:

Plan A is to land in that field; Plan B is the engine actually works and I motor away.

Even if the engine is running, its reliability should never be depended upon.

Performance and familiarity

To operate the engine with efficiency and ease, time taken to understand systems and practice procedures will be well spent. If the switches and controls are unhelpfully positioned, additional labelling can help, and some pilots create checklists to ensure that all steps occur in the right order. If there are start-up actions that you can carry out early, this can reduce pressure later. It's valuable to know how critical the airspeed and throttle setting are to starting the engine, to be familiar with its operating characteristics and idiosyncrasies, and to identify things you



might get wrong under pressure.

It's also useful to measure some practical characteristics. How long does it take, and how much height is normally lost, to get the engine running? How much for a second attempt, and to put the engine away? What rate of climb should you expect? What is the typical fuel or energy consumption – and, particularly for electric motors, how long can you run without overheating? If the engine stops – and perhaps can't be retracted – how does a windmilling or static propeller affect the glider's handling, performance and stall characteristics? Tests within range of your home airfield can provide the answers.

Planning for a field landing and starting an engine both add to your workload which, if the engine is needed, is already likely to be high. Bear in mind therefore that your own performance is likely to be affected. Most stall/spin accidents occur through stress and distraction, and engine noise and vibration will usually mask any pre-stall buffet.

Defining your limits

You should decide in advance the minimum height at which to begin attempting to use your engine. Start from the field and work upwards.

- By what height do you want to be focusing exclusively upon landing into your selected field? Remember that the glider's handling and performance could be affected by an extended propeller, and that you might have drifted out of position during the failed engine start.
- How much height do you need in practice to extend and attempt to start the engine and restore manoeuvring speed if it fails? Bear in mind your own performance under pressure, the scope for fumbling the starting sequence and dithering if it doesn't start first time; and that since the engine was needed, you could be in sinking air.

This will let you calculate the absolute minimum height to consider starting the engine; your glider flight manual may give helpful guidance. In addition:

- How long do you need to prepare the glider for landing? After a failed engine start, it's not uncommon for pilots to forget to lower the wheel. Lowering the undercarriage before extending the engine will reinforce to yourself that Plan A is to land in the field.
- How long do you need to select a suitable field? You're unlikely to do this successfully while starting the engine, and need to consider options lest the engine fail during climb-out. Many accidents stem from rushed field selection and poor circuit planning.

Now rearrange these into the order in which you'll need to perform them, imagine yourself doing so and the workload involved and, if it feels uncomfortable, add some margin for error. Try it at altitude and see whether it all works. This can be practised with an instructor in a motor-glider, with simulated operating drills and the engine adjusted to produce realistic descent rates. Simulated engine failures can be very realistic and instructive. Many clubs offer such training as an introduction to retractable engines.

Make sure you service the engine regularly and check the fuel, etc, before flight. It's good practice to check that the engine will start before setting off on task, while within range of the home airfield. Remain familiar with the operation of the engine; and stick firmly to your height minima.

When others ask how a glider can fly without an engine, we often explain that it's one less thing to go wrong. Retractable engines can and do let us down, often at critical stages of flight, and we need to plan for that.

Tim Freegarde and the BGA safety team



Gliders with retractable engines, like the ASG 32 El pictured above, are increasingly popular options and reduce the likelihood of a landout. However, Plan A should always be to land in a field, with Plan B being that the engine works and you can motor away (Schleicher)

RETRACTABLE ENGINES CAN AND DO FAIL, OFTEN AT CRITICAL STAGES OF FLIGHT AND WE NEED TO PLAN FOR THAT

■ For more information about operating gliders with retractable engines, read Eric Greenwell's comprehensive guide [1] and section 13 of the BGA's Managing Flying Risk [2]. The BGA's *Adventurous Soaring* video covers aspects of flight preparation.

[1] E Greenwell, A Guide to Self-Launching Sailplane Operation (2014) *https://tinyurl.com/flyright2121*
[2] BGA Managing Flying Risk, section 13 *https://tinyurl.com/flyright2122*
[3] BGA Adventurous Soaring (2019) *https://tinyurl.com/flyright2123*

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 (Dec19/Jan20)
Stop the Drop (Feb/Mar 20)
Avoiding Upset (Apr/May 20)
Backroom Boys (June/July 20)
Cockpit muddle (Aug/Sep 20)
Safe rotation (Oct/Nov 20)
Cockpit remedies (Dec 20/Jan 21)
Covid currency (Feb/March 21)
Eroded margins (April/May 21)
A good lookout (June/July 21)

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

BGA accident/incident summaries

AIRCRAFT Ref	Type	Damage	Date, time	PILOT Injury	P1 hours
125	Astir	minor	25/09/20, 16:15	minor	150

Heavy landing led to the undercarriage doors detaching. Just before round out, the pilot briefly thought that he had forgotten to lower the undercarriage during his pre-landing checks, delaying the round out leading to the hard landing.

2021

1	Astir	substantial	14/10/20, 12:50	minor	29

Crash in field after drifting too far downwind. The surface wind was reported as 15-20 knots. The pilot held a Bronze C and had already made one successful field landing, despite having only just started training towards the Cross Country Endorsement. The tug pilot reports that the glider released over the airfield just as a light rain shower reached the airfield; the glider pilot reports releasing at 2,000ft ato more than 3km downwind of the airfield. After making a few turns, the pilot briefly headed downwind; by the time he turned around to head back to the airfield he was nearly 5km downwind at about 1,700ft ato. The pilot flew through strong sink when passing through the rain shower and by the time he had descended to circuit height he was still about 2km from the airfield. He continued to fly to the airfield and when he realised that he would not reach it he was too low to do anything other than turn away and land in the field beneath him. The glider hit some small trees while turning and fell to the ground. The pilot had some muscle stiffness after the accident, both wings of the glider were damaged and the rudder had detached. As required by the club's currency procedures, the pilot had requested and received permission to fly solo from the duty instructor. The safety officer's report includes the recommendation that supervising instructors check that unqualified pilots understand and have planned for any threats posed by the prevailing weather.

2	K-13	minor	14/10/20, 11:30	minor	1838

Canopy opened during winch launch at about 500ft ato. The canopy shattered and the frame was bent, but the pilot was able to reach and hold the frame closed for the circuit and landing, sustaining a small cut in the process. While preparing to launch, another glider was late downwind to land. In the rush to launch, the club's usual procedure of having the cable helper asking the pilot to confirm that the brakes were closed and the canopy locked before attaching the cable was omitted.

4	SF25c	substantial	28/10/20, 13:40	none/none	322

Propeller strike on landing damaged the propeller and possibly the engine.

6	Grob 102	none	25/10/20, 14:00	minor	3

Heavy landing. The glider was seen to round out slightly high, the pilot reports over-correcting with the elevator and the glider then flew nose first into the ground, bounced nose up with the tail hitting the ground before the glider finally landed and groundlooped. The pilot was winded, possible damage to the glider is being investigated.

8	Discus	minor	21/10/20, 15:00	none	859

Wheel-up landing on hard runway. The visiting pilot reports concentrating on flying an accurate circuit and making the required radio calls at the appropriate moments; he suggests that this may have led to him omitting his usual pre-landing checks.

15	EuroFOX	substantial	21/12/20, 13:40	none	3448

Tug nosed over onto its back after running into soft ground during landing. The tug pilot and the CFI had inspected the airfield and assessed it as suitable for aerotowing. The pilot had done a few circuits and then three normal aerotows. The landing after the third tow was normal; the pilot was holding the stick back to keep the tailwheel on the ground and the tug slowed down as usual for the first 70m of the ground run. At an estimated 25kt ground speed the tug rapidly decelerated, lifting the tail until the tug tipped onto its nose and continued onto its back. The propeller was damaged, the club were still assessing further damage.

Incidents

124	DG-505	none	25/09/20, 16:25	none/none	1551

Wheel-up landing after a ridge soaring training flight. The report suggests that the extra workload involved in landing in a strong and gusting crosswind may have led to the pilot omitting pre-landing checks and not lowering the wheel.

126	ASW 18	none	14/09/20, 11:40	none	–

Near tug upset. As the tow climbed above 200ft ato the tug pilot felt the tug's tail being lifted, saw the glider in the mirror in a very high position and pulled the release. The glider landed downwind onto the airfield with the rope still attached. The glider pilot reports being momentarily distracted by an insect flying into his face and that the whole event took less than two seconds. Currency and possibly incorrect trimming cited as factors.

2021

3	Nimbus 3	none	06/10/20, 14:45	none	–
	Open Cirrus	none		none	–

Near miss while ridge soaring. The gliders were approaching almost head on, each pilot saw the other very late. The pilot of the glider that wasn't equipped with a FLARM intends to fit one.

BGA accident/incident summaries *continued*

AIRCRAFT Ref	Type	Damage	Date, time	PILOT Injury	P1 hours

5 DG-505 none 13/10/20, 11:15 none/none 1568
Winch launch with tail dolly still attached. The pilot realised the error when the glider didn't rotate off the nosewheel onto the tailwheel when the all out signal was given. He released at a safe height, flew a circuit and a careful landing. The club intend to highlight the importance of an ABCD check before getting in to the glider.

7 Puchacz none 17/10/20, 14:05 none/none 580
During a spin recovery exercise the P1 heard an unfamiliar and persistent rattling coming from behind him. After a careful circuit and landing, the glider was inspected and a hatch was found to be ajar. The hatch was secured and the glider test flown without any issue. During the inspection, a coat not belonging to either pilot was found behind the rear seat, under the battery shelf.

9 EuroFOX none 13/11/20, 11:00 – –
The tug was removed from the hangar and parked up with the controls locked and the parking brake on. The wind direction changed during the morning and picked up; the unattended tug was blown onto its starboard wing, fortunately without damage. The club intend to use tiedowns or put the tug back in the hangar in future when left unattended.

10 SF25c none 01/12/20, 15:15 none/none 1250
Rough running engine after take-off. The engine produced enough power to enable a tight circuit and glide approach to a safe landing. An inspection found noticeable quantities of water in the TMG fuel tank. A fuel sample had been taken during the daily inspection before an additional 20 litres of fuel was added. The water contamination was traced back to an airfield fuel tank which, due to events, had sat half empty since a partial refill two months earlier. The club would normally expect to use up an airfield tankful of fuel every month, leaving little chance for a build-up of water or other contaminents.

11 EuroFOX not reported 05/12/20, 12:55 none –
Engine failure at about 1,300ft ato during an aerotow. The pilot reports that although the engine instruments seemed normal he felt a strong vibration, there was a smell of burning and smoke entered the cockpit. The glider radioed that smoke was coming from underneath the aircraft; the tug pilot could see a trail of white smoke in the mirror. He was able to return to the airfield, although the engine stopped completely when he reduced the throttle on final, at which point the low oil pressure warning came on.

12 EuroFOX none 15/12/20, 14:25 none 2700
Engine failure during tow. The pilot reports a sudden vibration and smoke in the cockpit so he throttled back, waved off the glider and returned to the airfield. The number three cylinder had failed.

13 Junior none 20/12/20, 13:30 none 9
Airbrakes came open as the glider rotated into the full climb during an auto tow. The pilot reports hearing a significant bang, feeling the glider decelerate and assumed he'd had a cable break. He was able to lower the nose, gain a safe approach speed and land ahead. The launch had been paused to allow a landed glider to be retrieved and this may have interrupted the pilot's pre-flight checks.

14 Discus none 17/12/20, 12:40 none –
Airbrakes came open during a winch launch. The pilot had already released from the cable when he was informed over the radio that the airbrakes were open. He shut the brakes and despite being barely 300ft ato and with 800m of airfield ahead he elected to turn and land downwind. During the debrief the pilot pointed out that the airbrake over centre lock required very little force to unlock the brakes. The glider was derigged and taken to the maintenance hangar for rectification.

16 Astir none 12/12/20 – none 156
Wheel-up landing on grass landing area. There was another club glider in the circuit ahead of the pilot and, while he was working out where to land, the pilot forgot to do his pre-landing checks. He decided to cross the runway extended centre line and landed wheel-up on the other side of the runway in use. The CFI points out the importance of respecting the centre line while simultaneous left and right hand circuits are being flown.

17 – – 26/02/21 – –
The club's winch launch signals procedures follow the BGA-advised light signals backed up by radio. On this launch, the launch controller mistakenly gave the stop light signal instead of all out while simultaneously saying "all out" over the radio. The winch driver missed the light signal and responded to the radio signal and launched the glider. The club intend to remind all winch drivers that the lights should be the primary signal.

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.

AAIB BULLETIN: 4/2021

THIS is an abridged report of the UK Air Accident Investigation Branch report into a fatal Schleicher ASH 25 accident. The full report can be found in the AAIB Bulletins at *www.aaib.gov.uk/publications/bulletins.cfm*

Aircraft Type and Registration:
Schleicher ASH 25 E, G-CFST
No & Type of Engines:
1 Rotax 275 two-stroke engine
Year of Manufacture: 1989 (Serial no: 25073)
Date & Time (UTC): 26 August 2020 at 12:16 hrs
Location: Cheltenham, Gloucestershire
Injuries: Crew – 1 (Fatal). Passengers – 1 (Minor)
Nature of Damage: Aircraft destroyed

Synopsis
G-CFST launched behind an aerotow tug from Aston Down Airfield with the intention of soaring along the Cotswold Ridge between Dursley and Broadway. The soaring conditions proved challenging and the glider became too low as it followed the ridge to the east of Cheltenham, an area with few options for a successful field landing. The glider collided with the top of a line of trees while the pilot was attempting to start the glider's sustainer engine and trying to find a suitable place to land. After colliding with the trees, the glider struck the ground nose-first imparting fatal injuries to the pilot. The rear seat passenger received only minor injuries.

The investigation found that the accident occurred because the glider was flown over an area where the combination of the terrain and the glider's altitude meant a successful field landing could not be assured. While the pilot had been flying under an informal age-related 'dual-only' limitation imposed by his gliding club, the investigation was not able to determine to what degree age was a factor in the pilot's decision making on the accident flight.

Following this accident, the BGA began a consultation process with their member clubs to develop policy and guidance for the management of pilots who, for any reason, might benefit from flying with a safety pilot or relinquishing PIC status.

History
The passenger reported that the pilot maintained the correct position behind the tug throughout the aerotow. He also reported that there was very little lift to be found as the glider tracked northeastwards along the ridge. Crossing the 'Birdlip Bowl' to the east of Gloucester they experienced significant sink, losing over 350ft in 1.8nm.

The passenger judged that the ridge was not working and became increasingly concerned they were too low to continue following the route as intended. At that point he suggested to the pilot that they should err on the side of caution and divert to Gloucester Airport, approximately 3nm to the north-west. Possibly because they had picked up lift while tracking northbound towards Shurdington, the pilot instead chose to continue following the ridge east of Cheltenham. While concerned that they were lower than he was comfortable with, the passenger judged that, given the shallow glide angle of the ASH 25 E, they still had just enough height to allow them to escape to the north and, potentially, land at the airstrip adjoining Cheltenham racecourse.

Once past Shurdington, the glider descended steadily as it tracked eastwards. An eyewitness reported being on Hartley Hill at 885ft and seeing the glider heading from west to east close to the ridge "just below" their level.

The glider was below ridge level at approximately 4-500ft agl as it passed east of Hartley Hill. As the ground rose to meet it beyond Charlton Kings, the glider's height reduced to below 250ft agl at the point where the pilot turned to the north-west.

Shortly after turning away from the ridge near Charlton Kings and without informing the passenger, the pilot began an attempt to start the glider's engine and turned to the south-west. The additional drag with the engine deployed required the pilot to lower the glider's nose to maintain speed for a windmill start. Despite the dive angle achieved, the passenger estimated that they were 5kt slower than ideal for a start attempt. He could hear the engine turning over but it did not fire up and the glider was heading toward a row of trees short of a residential area. Just before the glider entered the trees, the passenger put one hand across his face to protect it and pulled back on the control column to try and stall the aircraft and drag the tail through the trees in an attempt to reduce the energy of the collision.

CCTV evidence showed the glider hitting the tops of the trees in a right-wing low attitude. It then pitched steeply upwards and yawed rapidly to the right before falling to the ground, nose-first, beyond the tree line.

Conclusion
The accident occurred because the glider was flown over an area and at an altitude where a successful field landing could not be assured. While the pilot had been flying under an informal 'dual-only' limitation related to the perceived effects of ageing, the investigation was not able to determine to what degree age was a factor in his decision making on the accident flight. With an ageing pilot population, the effective and fair management of those with declining physical and cognitive capabilities is likely to remain an ongoing challenge for supervisors and regulators. Formal guidance, such as that proposed by the BGA, could help those empowered with overseeing GA and gliding operations make more informed and transparent supervisory decisions in this regard.

Failing to recognise when they are approaching the point of no return for continued safe flight is not the sole purview of ageing pilots; it is a constant hazard in all forms of aviation and for pilots of every experience level. Effective CRM is an important risk mitigation tool for single-pilot operations, not just something to be employed by multi-pilot crews. While passengers do not have legal authority to intervene, if properly empowered as part of an effective CRM strategy, they can make a valuable contribution to the safe conduct of flights.

Safety action
Following this accident, the BGA:
- Began a consultation process with its member clubs with the aim of developing formal guidance to support the management of pilots of any age who might benefit from flying with a safety pilot or relinquishing PIC status.
- Undertook to write to all BGA Inspectors and owners of gliders with engines that are no longer supported by the engine manufacturer, to remind them of the maintenance requirements and the need to document any deviations from recommended maintenance in the aircraft's SDMP.

■ *S&G* extends its profound sympathy to the family of the pilot involved.

BGA BADGES

No.	Pilot	Club (place of flight)	Date
Diamond Badge			
858	Robert Vaughan	Denbigh	16/04/2021
Diamond Distance			
1-1323	Robert Vaughan	Denbigh	16/04/2021
Diamond Goal			
2-2664	Paul Bonhomme	Cambridge	07/05/2021
2-2665	Robert Pye	Anglia/ Herefordshire (Shobdon)	06/05/2021
2-2666	Alan Swan	Shawbury (Long Mynd)	16/04/2021
Diamond Height			
3-1881	Paul Cooper	Shropshire/ Staffordshire (Lleweni Parc)	24/03/2021
Gold Badge			
	Warwick Horne	Derby & Lancs	25/05/2021
Gold Distance			
	Paul Bonhomme	Cambridge	07/05/2021
	Warwick Horne	Derby & Lancs	25/05/2021
Silver Badge			
	Stephen Kenyon-Roberts	Deeside	16/04/2021
	Gavin McMullen	Bath, Wilts & N Dorset	17/04/2021
	James Walker	Buckminster	15/04/2021
	Finbar Billings	Welland	02/05/2021
	Thomas Brand	Cambridge	07/05/2021
	Henry Morris	Bicester/Oxford	01/05/2021
	Ireneusz Rudy	Wolds	06/05/2021
	Paul Bonhomme	Cambridge	07/05/2021
	Paul Maddocks	Cairngorm	25/04/2021
	Austin Rose	Cotswold	07/05/2021
	Nicholas Gras	Midland	06/05/2021
Silver Distance			
	Peter Flack	Norfolk	16/04/2021
	Stephen Kenyon-Roberts	Deeside	16/04/2021
	Gavin McMullen	Bath, Wilts & N Dorset	17/04/2021
	Martin Howitt	Midland	16/04/2021
	James Walker	Buckminster	15/04/2021
	James Davis	Essex & Suffolk	17/04/2021
	Henry Morris	Bicester/Oxford	01/05/2021
	Ireneusz Rudy	Wolds	06/05/2021
	Paul Bonhomme	Cambridge	07/05/2021
	Paul Maddocks	Cairngorm	25/04/2021
	Austin Rose	Cotswold	07/05/2021
	Nicholas Gras	Midland	16/04/2021
Silver Duration			
	Sean Link	Cranwell	10/04/2021
	Gavin McMullen	Bath, Wilts & N Dorset	17/04/2021
	David Stobie	Wyvern	17/04/2021
	Finbar Billings	Welland	02/05/2021
	Thomas Brand	Cambridge	07/05/2021
	Stephen Pleasance	Cambridge	07/05/2021
	Paul Bonhomme	Cambridge	01/05/2021
	Andrew Fleming	Shenington	02/05/2021
	Ian Simmonds	Dorset	16/04/2021
	Adam Patrick	Northumbria	21/04/2021
	Austin Rose	Cotswold	07/05/2021
Silver Height			
	Ireneusz Rudy	Wolds	09/04/2021
	Sean Link	Cranwell	10/04/2021
	Roger Newton	Dorset	16/04/2021
	Gavin McMullen	Bath, Wilts & N Dorset	17/04/2021
	Stephen Clinton	SGU	09/04/2021
	Jack Coleman	Darlton	01/09/2021
	David Perriam	Devon & Somerset	18/04/2021
	Christopher Golding	Lasham	16/04/2021
	Nicholas Baldock	Bristol & Glos	17/04/2021
	David Stobie	Wyvern	17/04/2021
	John Church	Buckminster	07/05/2021
	Peter Boulton	Oxford	02/05/2021
	David Spragg	Bicester/ Shenington	02/05/2021
	Paul Bonhomme	Cambridge	07/05/2021
	John Brownlie	Southdown	07/05/2021
	David Stringfellow	Welland	02/05/2021
	Austin Rose	Cotswold	07/05/2021
	Nicholas Gras	Midland	06/05/2021
100k Diploma Part 1			
	Peter Flack	Norfolk	16/04/2021
	Geoffrey Forster	Borders	22/04/2021
100k Diploma Part 2			
	Geoffrey Forster	Borders	22/04/2021
Cross Country Endorsement			
	David Potter	Cotswold	01/10/2020
	Anthony Pledger	Cambridge	20/10/2020
	Neil Bale	Burn	15/04/2021
	Peter Farrimond	London	19/04/2021
	Alexander Horstmann	London	19/04/2021
	Keith Longden	Bath, Wilts & N Dorset	21/04/2021
Cross Country Endorsement cont'd			
	Ian Orpe	Herefordshire	23/04/2021
	Andrew Wells	Trent Valley	28/04/2021
	Adam Patrick	Northumbria	22/04/2021
	David Stobie	Wyvern	02/05/2021
	Michael Spalding	Mendip	01/05/2021
	Keith Malone	York	27/04/2021
	Joshua Funnell	Devon & Somerset	29/04/2021
	Aliaksei Pilko	Shalbourne	01/05/2021
	Charlie Stuckey	Devon & Somerset	06/05/2021
	Mark Bennett	Lasham	04/05/2021
	Thomas Thomson	SGU	28/04/2021
	David McCormick	Borders	30/04/2021
	David Spragg	Bicester/ Shenington	30/04/2021
	Martin Capps	South Wales	09/05/2021
	Paul Merridan	Lasham	13/05/2021
	David Scott	Northumbria	10/05/2021
	Ireneusz Rudy	Wolds	23/04/2021
	Michael Clee	South Wales	19/05/2021
	John Church	Buckminster	27/05/2021
	John Purchas	Lasham	26/05/2021
	Peter Coates	Deeside	10/05/2021
	Antony Bonnick	East Sussex	29/05/2021
	Daniel Hayday	Cotswold	07/05/2021
	Nathan Godding	Rattlesden	30/05/2021
	Anne Soltow	Lasham	03/06/2021
	Steven Berry	Anglia	03/06/2021
	Paul Jackman	Lasham	04/06/2021
	Rodger Murray	Wolds	06/06/2021
	James Smart	Devon & Somerset	05/06/2021

Congratulations to everyone listed achieving badges

MERV RIDOUT (1937-2021)



MERV RIDOUT joined Bannerdown Gliding Club in May 2000, with his first flight in R20 (with Ken Reid), a K-21. This set a pattern as this became his favourite glider and accompanied him for nearly half of his total flying. Merv was sent solo (by Al Stacey) in December of the same year and went on to fly in the K-18 the following year.

Merv's final glider flight was in 2017, although he continued to come to the airfield and have trips in the Motor Falke until 2019 (last flight with Willy Hackett). Although he enjoyed flying, Merv's legacy will be forever in the 'projects' he managed and completed. The clubhouse was transformed from a sad portacabin, used as a bunk house, to a smart bar with stock room and computer room. He then ensured that that the clubhouse grew additional rooms, with the addition of a professional kitchen and dining room (affectionately known as Merv's Diner) and a classroom. A new engineering office popped up between two of the Nissan huts and an amazingly equipped workshop between two of the others.

Merv, with help from other members, notably Shaun Wickham, also built a winch, sourced us a new bus and completely refitted it. Merv's attention to detail was second to none and every consideration was taken to ensure that everything done would be a real benefit to the club and its members.

However, the Merv that will remain in our hearts is the one who was a true friend with a very ready smile, wicked sense of humour and a golden heart, freely giving his time to anyone who needed it. He could be relied on to help solve problems of any description from the creation of a vital 'bit' that was needed, to taking you out for the day to cheer you up. Merv loved to accompany people to any event, especially if a glider was coming too, and even better if it included good food, chips and ice cream.

Bannerdown GC

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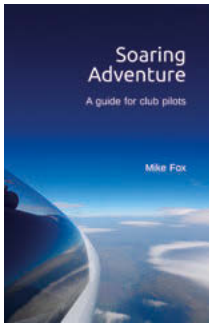
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SAVE THE DATE:
The BGA Development Conference is on Sunday 24 October, in person face-to-face if we can, otherwise we'll be virtual once more.

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Please remember that, if you are emailing text, your advert may not appear unless we have received payment by post or credit card by the deadline. The deadline for classifieds to be included in **Oct/Nov 21** is **9 Sept 2021**. Text: 80p/word, minimum 20 words (£16). Photographs: £6 extra. Box number: £3 extra. All prices include VAT.

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SAVE THE DATE: The BGA Sporting Conference, exhibition and awards dinner is on Saturday 12 February 2022 at the Belfry Hotel, Nottingham

General Aviation Legal Consultant
TIM SCORER CONSULTING

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.

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INDEX TO DISPLAY ADVERTISERS

AFE/RD Aviation	inside back cover
Airborne Composites	74
Bristol & Glos GC	35
BGA	IFC + 9 + 28 + 30 + 35 + 72
Centre National de Vol á Voile	35
East of England	74
Forbes Brokers	65
GASCo Flight Safety	72
Hayward Aviation	31
Hill Aviation	9
John McCullagh	73
Kennedys Law	72
Lasham GS	7
Midland GC	66
Norfolk GC	31
North Yorkshire Sailplanes	74
Oxfordshire Sportflying	72
Philip Wills Trust	46
Skylaunch	74
Soaring Safaris	73
Southern Sailplanes	back cover
Stein Financial	72
Sydney Charles Aviation	7
Zulu Glasstek	15

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