microlight FLYING

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inside

Flylight's new sub-70kg soaring nanotrike, the Adam

Meet Merv Middleton

40 years of the BMAA

AVGAS

We're liaising, officer

IF you were asked to draw a picture of a *Boy's Own* hero, you'd come up with Adrian Leonard.

Clean cut and with disturbingly boyish looks and enthusiasm in spite of the fact that he's north of 50, he's a former RAF pilot and until last year was a Virgin Atlantic Captain.

Before that, he held a Guinness World Record for solving 28 Rubik's Cubes while unicycling. As you do.

When the Coronacrisis sent the airline industry into freefall, he got a new job as Safety Manager at Aldergrove Flying Station, formerly RAF Aldergrove.

"Here," he said the other day, "as part of my job I'm supposed to do some 'general aviation liaison', so I was thinking…"

"That it's about time we went flugelling?" I said.

"Exactly. I'll see if I can get us permission to buzz the tower at Aldergrove as a one-off."

A few days later, we climbed into the Foxbat at Newtownards just as Ken Crompton was setting off in the Thruster with a student.

"Where you heading, Lofty?" he said.

"Low pass at Aldergrove, then Causeway airfield."

"Don't go too low, or they'll charge you £90," he said. I think he was joking.

Half an hour later, we were proceeding along the main runway at Aldergrove at 200ft, and with Adrian flying, I waved my credit card at the tower just in case.

"This is brilliant," said Adrian, and he was right.

Less brilliant was my landing at Causeway, although on the principle that we could use the aircraft again, it was perfect.

"Wow, what a fabulous spot. So much interesting stuff," said Adrian, as we wandered through hangars filled with AX3s, C42s, Skyrangers, Renegade Spirits, Aventura SSDR and classic Lake amphibians and Morris Minors.

Taking off in a stiff crosswind, I then managed to clear the fence along the side of the runway by a good 0.000001mm, followed by a crosswind landing back at Ards which produced a squeak of protest from the tyres, although in my defence, Your Worship, I was landing straight into the setting sun.

"Sob. Just when I thought I was getting the hang of this," I said.

"Listen, my experience is: good landing – round of applause; bad landing – hearty piss-taking and jolly banter; terrible landing – no one says a word. And I loved the entire day," he said.

What a fine chap. We're going flugelling again soon. Sorry, I mean "general aviation liaising".

Geoff Hill, ghillster@gmail.com

Grand Sasso, by Ian MacAdam
Ian at 11,000ft over the Gran Sasso range in Italy in his PulsR

PHOTO COMP 04

Features

Leading Edge

Trailing Edge

Classifieds 50

COVER: Inside we report on Flylight's new sub-70kg soaring nanotrike, the Adam. News story by Steve Uzochukwu, first flight impressions by Clive Mason

PHOTO COMPETITION

THIS MONTH'S WINNERS

First **Tim Goldfield, "Playing over the clouds"** *(main photo, facing page)*
"I just won a GoPro award for this shot of me and flying buddy Dave Allen playing over the clouds in two P&M Quantums on a flight between Shifnal and Darley Moor – one of those days you just can't stop grinning to yourself!" said Tim. "It was taken with a GoPro Max 360 which captures a full 360° frame – hence looking like it's taken by a third party."

Second **Ian MacAdam, "Grand Sasso"** *(page 3)*

Third **Geoff Hall, "Sheffield Park"** *(immediate right)*
Geoff and flying buddy Paul Brooker over Sheffield Park in East Sussex in all its autumnal glory. Geoff's great article on autumn photography and how to take fabulous pics at any time of year will be in September *MF*, courtesy of our huge Forward Planning Department.

Fourth **Graeme Cassie, "Rail bridge"** *(above, top)*
Graeme over the Forth rail bridge during a trip from East Fortune to Balado.

Fifth **Owain Johns, "Me and my shadow"** *(immediately above)*
"A little local bimble in my QuikR from a farm strip at Boltoph Claydon in Bucks before lockdown," said Owain. "Looking at it made me realise how lucky we are to have our sport, so we should make the most of chances to get back up again and not take it for granted."


1


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PHOTO COMPETITION

COMMENDED *(in no particular order)*

1 **Gary Loughran, "Newcastle"**
Gary over the lovely old Victorian railway hotel, the Slieve Donard in Newcastle, Co Down in his very nice X-air Hawk out of Newtownards airfield.

2 **Richard Smith, "Jordan"**
"Without any official training, my daughter Jordan, now 21, flew a complete round trip of almost three hours to Cromer apart from takeoff and landing in our Eurostar SL," said proud dad Richard. "Over the years she must have been paying some attention while trying her best to play it cool and be disinterested. She held speed, pitch and track better than me and a few others in our group with hundreds of hours experience. She'd make a good pilot if she wasn't in her last year pursuing her degree and career in superyacht interior design."

3 **Neil Hathaway, "Sandy"**
Neil landing in his Merlin SSDR at Sandy. "I like this picture because it shows off the airfield and the interesting approach over the road. The whites in the bus drivers' and lorry drivers' eyes are a picture sometimes!" he said.

4 **Mike Calvert, "East Lothian"**
East Fortune student pilot Mike with instructor Graeme Ritchie over East Lothian, with Tantallon Castle in the foreground and Bass Rock in the distance.

5 **Clive Mason, "Severn"**
"Over the river Severn in Gloucestershire in my Flylight sub-70kg. Amazing views and amazing aircraft," said Clive.

6 **Brendan Digney, "An island life"**
"Landing onto the remote runway of Inis Mór, an island off the Irish coast, set in the Atlantic," said Brendan. "It's upward sloping, loose gravel and pretty rough, yet it is the main link between the island's small population and the mainland, from post to medical flights."

All of the photo competition entries can be seen in *eMF*, our mid-month enewsletter. Sign up for it free at **bmaa.org/publications/bmaa-emf-newsletter**. If you missed *eMF* you can see the full entry at **microlightflying.org.uk/gallery.**

Want to enter? Send your photo as a jpeg attachment of at least 1Mb, with a brief description of the aircraft, flight and home airfield, and confirmation that you're a BMAA member, to editor Geoff Hill at **ghillster@gmail.com**. And please take a look at the rules, at microlightflying.org.uk/photo-competition-rules.

NEWCOMER FROM FLYLIGHT

The Adam: A brand new soaring trike

> The Adam and Atom 80 is a great combination

FLYLIGHT has released the Adam, a new soaring trike with a matching new wing, *writes Steve Uzochukwu*.

Ben Ashman developed the wing this year with Aeros, Flylight's wing manufacturer, after earlier plans for a revision of its sub-70kg range were disrupted by the pandemic. The trike is also new, and incorporates a revised version of the retractable undercarriage now uniquely associated in flexwings with Ben and Flylight.

This is key to the low drag needed for a soaring trike, which offers the possibility of switching off the engine and flying in thermals, but in order to do so the aircraft needs to fly as efficiently as possible.

The Adam is named in memory of Ben's brother, who died during the early stages of the Covid-19 pandemic.

The wing is currently undergoing the last stages of testing, so it is still in prototype form. It will be released when the final adjustments are complete, but overall Ben is very happy with handling and performance.

Power is provided by the Vittorazi Atom 80 motor. Fuel consumption figures are around 2.5 l/h, giving unprecedented endurance in the class.

Flying with an 80kg pilot offers a solid 400+ft/min climb rate. Empty weight is currently in the environs of 58kg, depending on options. With the 70kg limit including fuel, there could be up to 16 litres in the tank.

The target audience would include microlight pilots wanting a lightweight soaring experience, those coming from footlaunch for whom that method of takeoff is no longer feasible, or anyone looking for an aircraft with minimal footprint in terms of storage, and minimal fuss in terms of regulation.

We'll have a full flight test on the Adam as soon as restrictions and winter weather allow.

The revision to the rest of the Flylight trike range was disrupted by events this year, but now the changes that were in progress early in the year are complete.

The Peabee is now in its third year and continues with the addition of the Peabee Redline model, featuring a new fairing and other general refinements. The engine of choice is the 26hp Vittorazi Moster 185 Silent MY20 engine.

Since our last review, there has been a trimmer system fitted, and the hands-off trim is now over 40mph. Stall remains 20mph, and top speed is in the region of 55mph.

There's also a new "fly and camp" SSDR, the Bivvy Bee, where the greater payload of SSDR has been optimised, with the Fox 13 topless wing at the heart of the aircraft now up to a carrying capacity of 190kg.

The trike frame is developed from the Dragon series with enhancements like large 12in 400.4 tyres and MB hubs on the rear axles for rough field use.

Accessories like the new Touring Bag focus on the overnight stay away, offering easy attachment and removal without the need for clips or hook-and-loop fastener. The Touring Bag does not obstruct the airflow to the engine or propeller.

The higher MAUW also opens up the fuel capacity to 25 litres, which makes for an endurance of 5.5h.

According to Ben Ashman, the price hasn't been finalised, but should be around £11,500 including VAT, slotting in between the £9960 PeaBee and the £12,500 BivvyBee.

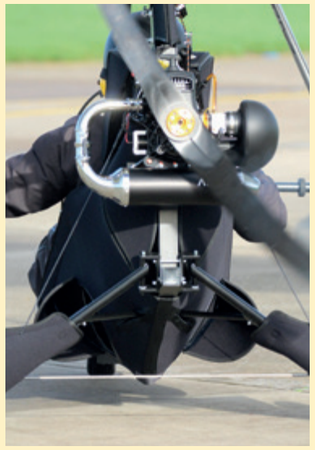
To see the aircraft in action, put "benashman" into a YouTube search. Visit flylight.co.uk to see the entire product range.

Above
The new Flylight Adam in action

FIRST FLIGHT

The mighty Atom

We'll have a full flight test by Steve Uzochukwu on the new Flylight Adam nanotrike as soon as possible, but here's a taster from the endlessly enthusiastic Clive Mason



The Atom engine

THE sub-70kg Adam is essentially a modified and slightly lighter PeaBee with an all-new undercarriage retraction system, along with some clever fabric work to fair the wheels in.

The 13.2m² wing, designed by Ben Ashman and Sergey Drobyshev from Aeros, is the slightly modified frame of the Fox 13T wing with a new higher performing sail and 75% double surface using ultralight sailcloth, so that the whole weighs only 26kg.

Speeds are similar to the Fox 13t but need far less power, hence the aircraft's ability to perform with the Atom 80.

Ben says the handling has been improved, along with a greater sense of stability to give more confidence in turbulent conditions. I've done 80h using the Atom engine in a paramotor, burning about 3 l/h, so I was really interested to see how it would perform in a trike.

After watching Ben fly around raising and lowering the landing gear, it was my turn, and within a few seconds I was airborne with a great smile on my face, surprised at how quickly it left the runway.

With a nice steady climb of around about 400ft/min, it wasn't long before I felt absolutely at home with it. It was very confidence-inspiring, and my first thought was that it would be a great aircraft for my 10-year-old daughter Chloe one day.

I spent about 10 minutes playing with the bar control before having a go with the undercarriage, which turned out to be a really easy job that only takes a few seconds to achieve with the pull of a cord. Obviously if you forget to put it down, you end up with a belly landing, which may not be the end of the world, but just make sure that you take your checklist with you till you get used to using the wheels!

The handling was super light, and with plenty of different power settings the wing appeared to fly in a straight line and without any oscillation.

Apparently the Adam and Atom 80 combo has enough power to fly Paul Dewhurst at 100kg. Would I buy one? Yes. It's a great combination.

Paul Kiddell's Eurostar with Tucanos at the RAF Linton-on-Ouse disbandment ceremony. It's not one of the black ones, and definitely not the yellow one, so we think it's the silver one

▷ Flying resumes

AS you should know by now via a BMAA email or social media sites, flying resumed after lockdown ended on 2 December.

The Department for Transport, which had previously said its rules were nationwide, allowed all GA flying and instruction in all tiers, although if you're closer than 2m, wear a face covering.

See the News section at bmaa.org for details.

600 reasons to be happy

THE day of 600kg microlights should be here by the end of February, along with harmony with European standards to help both importers and exporters.

This means not only a more useful payload for existing types which qualify for a higher weight allowance, it also means UK manufacturers can more easily sell aircraft abroad, and pilots here can have a much better choice of machines to buy.

"Work is going ahead very well to revise the microlight airworthiness and manufacturing codes to enable 600kg microlights to be a reality in the UK towards the end of February," said BMAA Chief Executive Geoff Weighell.

"Plans for licensing are also going well. I sit on the licensing working group, and it looks as if the transition from the aircraft types that we have now to flying heavier microlights will be very straightforward, with just appropriate differences training that pilots are likely to take anyway.

"Those with previous experience of flying heavier aircraft probably won't even need that. At last, we are seeing the finishing post."

BMAA Chief Technical Officer Roger Pattrick is part of the review team looking at the airworthiness codes used both here and abroad, with the intention to harmonise as much as possible.

At the same time, the CAA is reviewing the UK manufacturing requirements, which could lead to a revised requirement and again some degree of harmonisation with non-UK requirements.

"The intention is to make it simpler to have UK aircraft approved abroad and non-UK aircraft approved here," said Geoff Weighell. This will help the free flow of aircraft that may just be sitting out there waiting to come to the UK."

Kit-built training imminent

WITH the CAA having agreed in principle the use of amateur-built machines for training, it's looking likely to become a reality early this year.

"There will be some limitations, or rather conditions of use, which have to be agreed before this can go ahead," said Geoff Weighell.

"I have started drafting documents ahead of the implementation phase, so hopefully this task, which is likely to be completed in the first quarter of 2021, will go smoothly. Fingers crossed (again)."

All change, no change

WE may have left the EU and EASA at the end of 2020, but there's no real change for pilots planning to tour the Continent.

A UK NPPL or PPL(M) won't be valid for flying in the EU, and pilots will need to get an EASA one. Details of how to do this will be coming soon from EASA.

However, the UK has established agreements with some European countries, such as France and Germany, that currently accept the NPPL when flying a UK-registered aeroplane in their airspace.

Pilots of permit aircraft, as opposed to certificate of airworthiness ones, will need specific permission from the EU country they want to fly to.

"These are no change from the current situation, although the best bit is that EASA permit aircraft on the UK register will become UK permits. Good news for the EASA CTs," said Geoff Weighell.

"And it's absolutely massive for a few types like the few UK Sportstars," added *MF* reporter Paul Kiddell.

CAA launches airspace review

THE CAA has launched a new procedure to review the classification of airspace. ▷

The Swedish Blackwing has just set a new microlight world speed record of 242mph

▷ This procedure took effect from 1 December.

"The new procedure has three distinct stages: Consider, Review, and Amend," said CAA spokesman Jonathan Nicholson.

CAA Policy Director Tim Johnson said: "We are committed to making the amount of controlled airspace in the UK the minimum required to maintain a high standard of safety, while ensuring the needs of all airspace users are reflected on an equitable basis.

"A team dedicated to the review of airspace classification will run the new procedure and start work on those volumes in January. We will review how the procedure is performing in three years, or earlier if there is a change in Government policy."

You can see details at caa.co.uk/Commercial-industry/Airspace/Airspace-change/Airspace-classification.

Swedes produce turnup for the books

TRAGIC news for Thruster owners who were hoping to set a new world microlight speed limit: you've got some work to do.

Swedish pilot Niklas Anderberg and co-pilot Fredrik Lanz, flying the sleek Blackwing produced in their home country, have just set new standards in the two-seat fixed-wing class for speed over a 50km circuit and in a straight line: 351.56km/h and 389.55km/h respectively, or 218mph and 242mph in old money.

And the Blackwing's got an MTOW of 472.5 to 600kg and a stall speed of 35kt. Remarkable.

Bute's a beaut

LANDINGS at scenic Bute airfield will be free all year, says Sandy Cameron, one of the strip operators.

"Yup – due to a healthy airstrip budget relative to the upkeep of the airstrip, 2021 will be donation-free," he said.

"All the best for good flying in 2021, and many thanks for all your 2020 donations!"

HQ rings the changes

THE new phone system at BMAA HQ in Deddington is now tinkling away merrily to help callers get in touch with staff members, most of whom are still working from home.

"You just dial the normal contact number, and then you can be put through to the staff member, even if he or she is a few miles away. It seems to work, and actually saves us a little money over the old system," said Geoff Weighell.

"To assist us, if you have an application for a licence, permit revalidation or aircraft modification, please check progress first through the website using the 'Where is my paperwork' links at the footer of each page."

Bute airfield – free landings all this year (photo: Paul Kiddell)

Farewell to Linton

ON 1 December, Grob Tutors of the Yorkshire Universities Air Squadron relocated from Linton-on-Ouse to RAF Leeming, bringing an end to over 83 years of RAF flying at Linton, *writes Paul Kiddell.*

A Second World War Halifax bomber base, Linton was used for training RAF pilots from 1957 until the Tucanos left in 2019.

The airfield and ATC have closed with immediate effect, along with the Linton Lower Airspace Radar Service (LARS) – both are NOTAMed as such. The MATZ will formally be withdrawn by the time you read this.

Shuttleworth every penny

THE drive-in air displays at Shuttleworth are back this year, with 10 dates from 2 May to 3 October.

"The drive-in format is fantastic, and there are limited fly-in slots too," said *MF* reporter Paul Kiddell.

For details, see shuttleworth.org/events/airshows.

UK pilot new FAI President

BRITISH pilot David Monks has been elected as the new President of FAI, the world airsports federation.

An electrical engineer, David, 53, learned to fly helicopters in 1995. Since then, he has held positions in several airsports organisations, including Chairman of the RAeC and of the Helicopter Club of Great Britain. He has also been very active within FAI, serving on the FAI Rotorcraft Commission and the FAI Air Sport General Commission, since 2009.

He won the bronze medal at the 2008 FAI World Helicopter Championships and two silver medals at the 2012 event. He's also a holder of three FAI world records.

He succeeds New Zealander Bob Henderson, and will serve for two years. □

LLANBEDR AIRFIELD PROPOSALS

A huge opportunity to be grabbed

DEAR EDITOR

As the CAA announces the start of the Llanbedr Airspace Change Proposal (ACP) public consultation for a new Danger Area – if approved the first ever to be civilian-managed in the UK – I would like to flag why supporting this airspace change is important to members. It's important because we need to keep this airfield open!

We want you to fly into Llanbedr, and to do that, the airfield has to be commercially viable.

I have been a microlight flying instructor for 35 years, an examiner, an FIC Instructor, an elected member of the BMAA Council for three years and Chairman of the Training Committee for five years.

I won the planning permission for Clench Common airfield back in the Eighties, and I played no small part – with a host of volunteers – in getting Kemble airfield going again when I moved my microlight school there in 1995.

I'm one of the four partners who own Llanbedr – and the mostly absent airfield manager because I actually have far too much fun running Kemble Flying Club!

We need this ACP for Llanbedr to help restore this fantastic airfield to its former glory, but in a new era of smaller drones, electric aircraft, unmanned traffic management challenges and so on, and Llanbedr is the perfect place for testing Beyond Visual Line-of-Sight (BVLOS) activity.

The first unmanned aircraft were flown from there in the 1950s – the Firefly and the Meteor Jet – and the Jindivik target drone programme ran until 2004. There is a huge demand for dedicated airspace in the UK to trial new unmanned aircraft and their operational tasking ability.

But we are not allowed to persistently ask for temporary airspace and have had to follow the *CAP 1616* route to apply for a permanent airspace change to provide a centre of excellence for UK drone and experimental aircraft trials. The UK will lose out to the Europeans if we do not get this sorted.

For GA, we are still what is called green field at the moment, but we have employed one full-time FISO and another is training part-time. Provided the anticipated customers come in, we can make the part-timer full-time and employ an ops apprentice, and the airfield will have a future!

We have plans to build a new café to serve the wandering GA traveller, and to install met equipment so we can provide TAF and METAR information. We will eventually have an online instant response PPR system.

To do this we have to have some airspace. We will not activate any more than is needed for a trial. In the vast majority of cases GA traffic will be able to get by or over activity and the FISO will be there to help.

So if you would like to see Llanbedr remain open to GA, the key is helping with its commercial development. We want the opportunity to do unusual things, to create jobs and to stimulate the local economy. We want to build an aerospace hub and even a spaceport, and we want you to be able to fly in and experience something very different!

Please have your say via airspacechange.caa.co.uk/PublicProposalArea?pID=193.

David Young
CFI/FIC Instructor, , Kemble Flying Club
Partner and Aerodrome Manager,
Llanbedr airfield ▷

Above
Llanbedr airfield – planning for the future

Phil Greaves, 73, ready to take to the skies with his son Rob at the controls; and Rob over Westonzoyland with dad in the back seat

Two of a kind

DEAR EDITOR

I bought my dad Phil, 73, a flexwing experience flight for his 60th birthday back in 2007.

He took to the skies somewhere in Cheshire and enjoyed some back seat aerial views of traffic on the M6 and the Jodrell Bank radio telescope.

This was long before I had even started taking flying lessons. Fast forward 10 years to 2017, and I started my NPPL training and subsequently obtained my licence.

Once the Covid travel restrictions for Wales were out of the way, dad ventured down to Devon for a visit with the intention of having his second ever flexwing flight, this time with me at the controls.

The weather was positively awful, but we set off for the 75-mile drive to Westonzoyland airfield undeterred, with the wipers on maximum.

At the airfield, it was more of the same, but a few cups of clubhouse tea and a pasty lunch later, it cleared up and we took to the skies above Somerset for an hour in glorious weather, with views of Glastonbury Tor, Burnham-on-Sea and Burrow Mump.

Dad thoroughly enjoyed the flight, which was made all the more special through being flown by his son.

After putting the flexwing back in the hangar, the weather turned awful again, and the drive back to Devon was much the same – rain and bad vis with the wipers going!

Regards, Rob Greaves

If you've any doubt that Bernie Quinn is bonkers, this is his copy of *MF* drying out after his security staff, aka wife, took anti-Coronavirus measures a step too far

Evergreen, and bananas

DEAR EDITOR

Hope you're OK and still taking the "Stir Crazy" tablets.

Here's today's conversation with the charming Karen Judd at BMAA HQ as I tardily renewed my membership…

Me: "Is it true there's a huge discount for octogenarians?"

Karen: "Afraid not."

Me: "Oh, must have been the Salvation Army then… or the SAS, I can't remember, and anyway I can't stand squid, never mind octopus."

(Pause for giggle)

Karen: "Is it for one year or three?"

Me: "I'm 84, so what do you think? Listen, I don't even buy green bananas any more."

When Karen had stopped laughing, I said I'd pay by card, and when she asked for the expiry date, I resisted the temptation to say: "Me or the card?"

According to what I saw in the mirror this morning, it's anybody's guess, and I buy my lottery tickets no earlier than 6.30pm on the night of the draw, as statistically I've got more chance of being run over than winning.

We parted friends, and my new membership is, from where I'm sitting, a long-term commitment to boast about.

Best for now,

Bernie Quinn

PS: If readers are confused that my earlier letter in *MF* appeared under Bernie Clifton, I was a singer who changed my stage name from Quinn to Clifton after being advertised as exotic dancer "Burma Queen". Anyway, have to go. Matron just read this over my shoulder, so it's off to the ice bath.

What's better than Group A? Group B

DEAR EDITOR

Chris Hodges has flown heavy Group A aircraft for many years, but as an award-winning beekeeper, he directly employs more than 5M very ultralight pilots, so he decided that he really needed to understand low-inertia handling techniques.

Happily, after a short conversion course at Newtownards airfield, Chris passed his GST in a Jabiru, and now has a firm grasp ▷

After years keeping bees, Chris Hodges joined the A Team after passing his GST at Newtownards

▷ of all the issues affecting his large group of lightweight dependants.

Congratulations, Chris, on a very sweet GST with no sting in the tale. Your success has caused a great buzz amongst your employees. If you want a job, you can contact Chris at Veesbees.com.

Also at Newtownards, Brian Blakely took advantage of freezing cold, crystal clear visibility and zero wind to undertake his GST in my Thruster. A very happy Brian passed with consummate ease, and is now looking for his own microlight aircraft – with a heater.

Ken Crompton
CFI, Northern Ireland Microlights

It's a pleasure, sir

DEAR EDITOR

I took a chap flying before lockdown as a charity flight where I pay all the costs, and he wasn't taking any Covid chances, as you can see in the photo.

He's called Ian Brown, and he's a freelance TV editor, Commodore at the local sailing club, and father to a very disabled son, so the flight was an element of respite for him.

Bless him, he then donated £75 to Clatterbridge Cancer Research.

Jon Hilton

Ian wrote this later on Facebook:

Life is about little victories, especially in these funny times. After six months of hard struggle, we finally reached our fundraising target for our son Thomas' adaptations.

Jon Hilton's passenger Ian Brown wasn't taking any chances

After a task that had consumed me for so long, I was suddenly at a loose end rattling around with nothing to do other than practise my Chopin, then I saw Jon Hilton's post offering flights for charity.

Within 18 hours I was at Barton Aerodrome. The night before, I'd downloaded his book Decision Height, *and started reading about his flight to Canada in his tiny aeroplane. I'm not sure if this was wise…*

Tam Carr's had a great year since passing his GST. Here he is at Oban with wife Jane after buying the Eurostar. Note colour coordination with pullover, Eurostar and plane behind

At the airfield, we met and Jon talked me through things, then asked me where I'd like to go, and there was only one answer; 20 minutes later we were flying over my house, which I'd barely left in six months and which we plan to adapt for Thomas soon.

Then onwards to Delph, where I am Commodore. This year we won NW Sailing Club of the Year, then promptly closed to visitors.

My world has been pretty much Bromley Cross and Delph throughout the pandemic, so it felt liberating to head on to the coast. Soon we were flying over Southport, where I normally spend 24 hours each year competing in their endurance race. Not this year.

Then home via the Reebok (University of Bolton) Stadium where I used to watch the Wanderers take on the Premier League elite..

After nearly two hours in the air, we landed safely at Barton, and over a brew, Jon fleshed out more of his eclectic back story. We bumped elbows and I headed home to donate to his favoured charity and finish his book.

A great day out, and a pleasure to meet such an interesting man. You can donate at justgiving.com/jon-hilton.

Bronze wings from a golden year

DEAR EDITOR

Looking back at my first year of flying since passing my GST in November 2019, I've logged 66h as P1, gained my BMAA Bronze Wings award, visited 17 new airfields, purchased a Eurostar G-IDOL in September this year and flown her from Sittles Airfield in Staffordshire to her new home at Perth in my longest flight so far, stopping at Breighton and Fishburn on the trip north.

It was a fantastic adventure, and it's been an amazing learning curve. If Covid can be beaten, I'm planning to be at Sywell in 2021.

The photo, courtesy of Paul Kiddell, is of me and my wife Jane taken, when we visited Oban for the first time a couple of weeks after buying G-IDOL.

Cheers, Tam Carr

Catatonic tonic

DEAR EDITOR

Your joyous editorial in the last issue had me roaring with laughter yet again. Great edition, too. Lee McIlwaine

Lee, too kind. It was actually dictated to me by the cat as I lay on a chaise longue in the drawing room in an opium-induced haze – Ed.

SAFETY

Free as a bird!

Well, not quite. If you're flying sub-70kg, you still need insurance, says **Marc Asquith**

> The only way to get training is with a flexwing instructor

SOME people say that the introduction of the sub-70kg category of aircraft, both hang glider and paraglider-based types, is the best thing since sliced bread.

Certainly, for aging hang glider pilots it's a welcome relief from climbing hills and running like stink to take off!

While flying such aircraft is very much a deregulated activity (note – deregulated, not unregulated) there are certain legal requirements that have to be complied with, such as insurance.

Let's start with a quick reminder of how we got here.

If you go back far enough, it was easy: there were hang gliders and flexwing microlights. Microlights required licences and registration. Hang gliders did not. Paragliders, when they emerged, were treated as hang gliders.

Then we began to see paramotors. Who can forget Fan-Man James Miller flying into the boxing ring at Caesar's Palace in 1993 and landing on the roof of Buckingham Palace in 1994?

Soon after that, the BMAA and the British Hang Gliding & Paragliding Association (BHPA), engaged with the CAA to legalise what are legally known as self-propelled hang gliders (SPHGs), but to most people are paramotors, Doodlebugs and Mosquitoes.

The main requirement for these to escape the regulations that applied to microlights was to be foot-launched. As soon as you put wheels on them, they became microlights.

By 2014, it was apparent that significant numbers of paramotor pilots were using a lightweight trike undercarriage to launch and land, either ignoring, or oblivious to, the legal position.

Once again, the BMAA and BHPA had a meeting with the CAA and out of that came what is now called *General Exemption 5036*, permitting wheels to be added to a SPHG without it becoming a microlight.

Interestingly, the driver for the sub-70kg category was wheeled paramotors. We did jointly warn the CAA about hang glider-based aircraft, but that was seen as a small side effect. Who could have guessed just how popular these aircraft would rapidly become?

However, the General Exemption did not exempt the sub-70kg aircraft from the European Insurance Regulation EC785/2004, which at Article 2(2)(c) says: *This Regulation shall not apply to foot-launched flying machines (including powered paragliders and hang gliders).*

So, not being foot-launched, the sub-70kg aircraft are legally obliged to be covered by liability insurance for at least approximately £820,000.

Historically, the BHPA has always provided liability insurance as an automatic part of the benefit of membership. So long as you held a BHPA qualification (rating) to do something, you were insured.

When the sub-70kg class was created, the BHPA concluded that anyone who already held a rating to fly a SPHG could equally fly the relevant type of sub-70kg. So holders of a Powered Hang Gliding Rating are insured to fly a PeaBee or the like. However, holders of a Powered Paragliding Rating are not covered to fly a hang glider-derived sub-70kg.

The BHPA view is that these pilots require additional training. Since there is no such thing as a two-seat sub-70kg aircraft because the exemption limits them to solo flight, the only way to get training is with a flexwing microlight instructor. The same applies to other non-pilots, so the only way to learn to fly a sub-70kg hang glider-derived aircraft is to start on a flexwing microlight.

This process works well, and as long as the "student" pilot is flying his instructor's flexwing, the instructor's insurance covers the student. However, the problem arises when the student wants to swap to his own aircraft and fly solo. In that situation, he is most often no longer covered by the instructor's insurance.

There are essentially two ways to deal with this. Firstly, the student can buy his own insurance. Axa can provide a policy, but the cover is poor, only a little above the legal minimum, and there are some nasty exclusions in the small print.

Alternatively, for about the same price, the student can join the BHPA. To close the gap in cover for those first flights, we have decided that we will extend cover to students flying their own sub-70kg while under the supervision of a BMAA instructor.

Since the student does not need to continue on to complete an NPPL, all we need is confirmation from the instructor that the student is capable of flying his sub-70kg unsupervised, and we will then issue the student with a BHPA Rating which means that he is insured to fly unsupervised.

This is a very informal system, but we do require notification from the student prior to flying solo that he plans to follow this route.

Such students should contact a member of the BHPA Technical Staff or me and just let us know which instructor/school he is learning with. Cover is not effective until this step has been taken. I can also answer other insurance-related questions. □

• *Marc is Chairman of the BHPA, Vice President of the RAeC and a barrister. You can contact him at marcasquith@gmail.com.*

Above
PeaBee over Pitsford, by Giles Fowler. Holders of a Powered Hang Gliding Rating are insured to fly these

The BMAA view

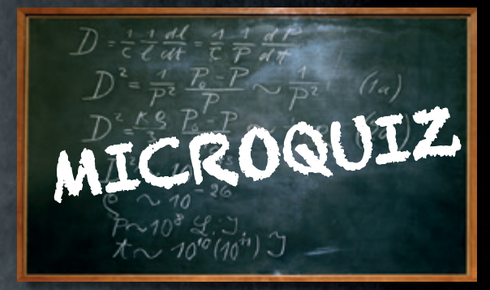
THANKS to Marc for the helpful information clarifying the limitations of the BHPA insurance as applicable to pilots of sub-70kg flexwings.

As an early member of the BHGA, now the BHPA, I was always pleased that the membership included third-party cover.

Several attempts by myself and others to achieve a similar policy within the BMAA membership have all been unsuccessful due to the significant difference in scale of membership and diversity of interests.

I always advise members when asked about insurance to look at the BHPA cover, which while not including hull cover is nevertheless competitive, and you can have a colourful magazine once a month too.

Geoff Weighell



1 **What is meant by "RERA" on a METAR?**
  a Light rain
  b Recurring rain
  c Recent rain

2 **Broken cloud coverage may be expressed as:**
  a 4-5 Oktas
  b 5-7 Oktas
  c 3-4 Oktas

3 **What is meant by "FU" on a METAR?**
  a Smoke
  b Funnel clouds
  c Frequent

4 **Which type of precipitation is associated with nimbostratus clouds?**
  a Light rain and drizzle
  b Heavy showers
  c Persistent moderate rain

5 **Buys Ballot's Law states that if a person stands with their back to the wind in the Northern Hemisphere, low pressure is:**
  a To the left
  b To the right
  c Straight ahead

***MF*'s quizmaster Lawrence Bell is the developer of QuizAero, the online groundschool for microlight student pilots, quizaero.co.uk.**

Answers on p21

GASCo
General Aviation Safety Council

GASCo, the General Aviation Safety Council, is a charity whose members are aviation organisations. Its aim is to make aviation safer through education. It presents the CAA safety evenings, runs seminars and provides safety information through its magazine and website, gasco.org.uk.

CHIRP

CHIRP, the Confidential Human Incident Reporting Programme, reviews and analyses reports from pilots, then publishes them so others can learn. Get the app at chirp.co.uk.

SAFETY

It could be you

Don't panic if you're picked for a random aircraft survey, says **Rob Mott**

Right
CAA Airworthiness Surveyor David Street after completing a lifelong ambition: the taming of the flexwing thanks to Gordon Douglas at East of Scotland Microlights. This is particularly special for David, as he is not a fan of heights!

HAPPY New Year to everyone! As is the tradition, let me offer a New Year Resolution suggestion relating to the maintenance of your trusty flying machine and aircraft surveys.

In my time at the BMAA, and I imagine ever since it came into existence four decades ago, it's been common practice for random aircraft surveys to be carried out. I don't mean the usual permit inspection, but a separate random audit.

Why are they necessary?

It's the only sure way to objectively confirm that the airworthiness system is doing what it is supposed to do and to check that owner/operators are maintaining their aircraft in between BMAA revalidation inspections.

Who carries out these surveys?

The BMAA, the CAA, or jointly when appropriate. We like to work together on this activity, to cover as wide a patch as possible.

Which aircraft can be checked?

The BMAA will potentially check any BMAA microlight or BMAA light aircraft, but the CAA is tasked with checking any aircraft, be it a Flylight PeaBee or an Airbus A380!

These can be national or foreign aircraft, operating within UK airspace or abroad. My own aircraft has been checked by the CAA, so no one is off limits, which is just as it should be.

How many BMAA aircraft get checked?

The BMAA generally aims to check around five or six aircraft annually, and the CAA aims for around the same amount.

Are there different types of survey?

Yes. BMAA or CAA can audit an aircraft at any stage of its life, from construction through to checking that an aircraft has been removed from the UK register in the correct manner.

If my aircraft is randomly chosen, what can I expect?

It does depend on the type of survey, but generally a paperwork review and a physical inspection of the airframe.

The aim of the process is to check that the owner/operator is maintaining their aircraft in accordance with the aircraft's permit to fly conditions. It is purely the responsibility of the owner/operator to ensure this happens, no one else.

What are the possible outcomes of a survey?

In a vast majority of cases, usually a big pat on the back for a job well done, maybe some friendly and helpful advice on how to improve even further and clarify any areas of misunderstanding, or answering any questions that arise.

If findings result from the survey, these are formally followed up to closure by either the BMAA or CAA. In extreme and very rare cases, suspension of the aircraft's permit to fly. In my 12+ years at the BMAA, this has happened on a couple of occasions, in literally over 100 surveys.

Are the surveys limited to certain geographical areas?

Definitely not. In my time I have been to all corners: NI, Cornwall, Devon, IoW, Kent, Wales, Anglesey, Midlands, London, Norfolk, Suffolk, Cumbria, Northumberland, up to Scotland and lots in between!

How can I prepare?

Basically, all you have to do is follow your aircraft maintenance manual as is appropriate. If you have questions, you can ask the following people for help: your local inspector, your instructor, the aircraft manufacturer/importer, engineering professional/expert and of course the BMAA Technical Office.

Finally, I understand most CAA surveyors have a weakness for chocolate Hobnobs. □

• *This article is written with the kind permission of the CAA. I would like to say a little thank you to numerous surveyors we have worked with over the years – Rob Mott.*

MICROQUIZ answers

1c Recent rain
2b 5-7 Oktas
3a Smoke
4c Persistent moderate rain
5a To the left

All things wings

The latest from the BMAA Wings Awards by **John Teesdale**

Roll of honour

Many congratulations to Aaron Mercer and Jacqueline Aldous for achieving their silver wings in late November. Well done to you both; what a great way to kick off 2021!

Heroes of the month: Flexwing Check Flight Video

The BMAA is delighted to announce a new video produced in-house by Rob Grimwood and John Waite, both BMAA Council members based at Plaistows Farm Microlight Club, on how to carry out a flexwing check flight to the BMAA schedule.

The new BMAA video by Rob Grimwood and John Waite talks you through a flexwing permit check flight

Rob is a microlight examiner examiner (yes, he examines the examiners!) approaching his third decade of flying, which all started due to a BMAA bursary.

A multiple microlight world champion who's represented the UK at numerous international competitions, he now runs Exodus Airsports at Plaistows Farm, just north of London.

John has a rich experience with microlights, both three-axis and weightshift, and has just finished building a Skyranger Nynja. This is his first attempt at editing, which makes this video all the more impressive.

It takes you through all the checks as required by the BMAA flexwing check flight schedule, generally used for the purposes of revalidating an aircraft's certificate of validity. Starting from strapping in and pre-start checks, it progresses through all phases of the flight as follows:

- Initial start-up and safety checks ▷

- Pre takeoff checks of airframe, instrumentation and engine
- Takeoff
- Timed climb
- General stability and trim checks (mainly roll and pitch)
- Manoeuvring and turns up to the handbook/permit limitation (generally 45˚-60˚ angle of bank)
- HASELL checks and stalling (recovery with and without power)
- High speed run up to V_{ne}
- Return to the airfield
- Overhead join
- Downwind checks
- Landing
- Post-landing and pre-shutdown checks.

The BMAA Tech Office is grateful to Rob and John for taking the time to produce this excellent video. In combination with the three-axis version produced by Ben Atkinson and David Young, our members now have an extremely useful tool to prepare them for undertaking such flights.

To watch the video, go to bmaa.org and click on the relevant news item. Alternatively, check out the British Microlighting – BMAA YouTube page..

Wing Tipz – Non-radio altimeter setting procedure

If you're flying to a non-radio airfield where you won't be able to ask anyone for a QFE, you can easily work it out approximately before you go. This will avoid the need to do mental maths while you're trying to fly the aircraft.

Find the height above sea level of your destination and divide the number by 30. Let's say you're flying to Coal Aston, which is 720ft AMSL; so 720/30=24hPa.

Now let's say your departure airfield is 180ft AMSL. While you are warming the engine, set 180ft on the hands of your altimeter. Now look at the pressure in the pressure window. This is your QNH. Let's say it reads 1010hPa.

To find your destination QFE, simply deduct 24 from 1010 = 986hPa. Write this down for use later: "Coal Aston QFE 986".

Also set your altimeter hands temporarily to zero (QFE), and again write down the pressure you see in the window. In this example, it should be 1004hPa. (1010 – 180/30) Write down "Home QFE 1004".

Take off with QNH set (1010hPa), then when you get your destination in sight, simply dial in 986hPa on your subscale. Your altimeter is now set to Coal Aston QFE and will read zero when you land – easy!

For the return journey, before you take off, set 720ft on the hands scale. You should see the same QNH in the subscale as you had at your departure airfield – 1010hPa. When home is in sight, set 1004hPa and you're sorted for a circuit and landing.

This procedure can easily be extended to other airfields if you're not coming straight back home. Always try to do the maths on the ground, not in the air.

The advantage of this method is that you can change the pressures while you are climbing or descending. It is only approximate, as pressure changes over distance, but unless you're flying over 100nm, it won't change much. □

I could have been a chopper cropper

Deepak Mahajan on how to avoid a slight case of death in a busy circuit

Deepak's happy hunting ground: with busy airspace all around, not much room for manoeuvre

OTHER than crashing just after takeoff in an unsuitable area, what is the greatest threat to you and your aircraft when flying in the circuit?

Have you considered this risk, and has your instructor ever mentioned this during your briefings?

I run a flight school at Damyns Hall, an uncontrolled grass strip in the southeast of England, surrounded by several busy airports with their patches of controlled airspace.

Imagine a narrow corridor of "open" airspace between four major airports, with a motorway, a river and a large well-known bridge. The bridge is a visual reference point. The motorway and the river are used as line features by pilots wishing to avoid the controlled airspaces.

Now imagine my home airfield placed in the vicinity, but not marked as an Aerodrome Traffic Zone with its two-mile radius of blue dots.

Our usual arrival procedure is for inbound aircraft to join overhead at 1400ft on the QNH of the nearby commercial airport, to stay below its CTA. On a good flying day, with CAVOK conditions, I see scores of aircraft pass overhead our field at a safe height and distance without causing noise nuisance and without affecting our arrivals, departures or circuit traffic.

Now let's come back to my question of the greatest threat when flying in the circuit. Along with this question, a pilot might not have considered some errors they might make and how they might manage these errors, thus further increasing the dangers.

A good briefing for circuit training will include the flying aspects, the orientation of the circuit, weather conditions, emergency situations on the ground and in the air, personal physical fitness and fatigue during multiple takeoffs and landings which require intense concentration from the student and instructor.

Circuit orientation

When flying a left-hand circuit, the pilot's vision will be obscured by the left wing when turning left. In a right-hand circuit, the pilot's vision is obscured by the right wing and by the space occupied by the occupant in the right seat, causing loss of sight of the runway, especially when turning from downwind on to base leg.

Weather

This may deteriorate in terms of visibility and turbulence, so consideration must be given to options of concluding the flight before the onset of poor weather or diverting to a safer airfield to avoid poor weather.

Emergency situations

These are generally easier to manage on the ground than in the air. During flight, I consider an engine stoppage with no fire the easiest emergency to manage in the circuit, because the only choice is to land back on the runway. The variations of an emergency can add many scenarios which may turn it into a disaster, but that is not the point of this article.

Personal fatigue

This can be a serious threat for the pilot due to the concentration and accuracy required to execute a good landing. It is important to land before the onset of fatigue, which may force the pilot to make poor judgment calls, leading to poor handling and a poor landing.

Mid-air collision

When flying the circuit at an uncontrolled airfield, in my opinion this is the biggest danger. The pilot workload is high, especially for a student.

We may be joining the circuit at an unfamiliar airfield. Or we may be in the circuit with many other aircraft of various speeds and have to manage distance and time separation from aircraft in front of us to avoid wake turbulence and to keep sufficient distance behind to allow the aircraft in front to reduce speed to land and vacate the runway before we land.

Now imagine that the cloudbase is just above circuit height, but visibility is good and the air is smooth. It is a weekend, and everyone is out to enjoy flying on the only good day of the week so far.

We have a PilotAware unit, which senses other transponder-equipped aircraft if its antenna can see the other transponder antenna. But this does not preclude the pilot from keeping a very good lookout for other traffic.

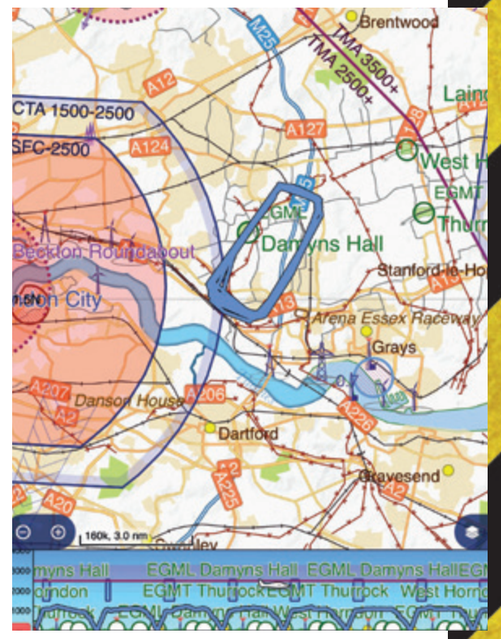
In one instance, I was in the circuit with a student who was concentrating on flying an accurate circuit. We were at 1000ft, about 200ft below the cloudbase, and I was keeping a very good lookout. When flying, you cannot hear another aircraft zoom 50-100ft overhead, and I caught sight of the helicopter just as it passed over us.

> "I caught sight of the helicopter just as it passed over us

We did not feel the anticipated downwash, probably because it was flying faster than our own speed of 90kt.

My student had not seen it due to his concentration on his circuit tasks, and the helicopter whizzed into the clouds and disappeared.

On the second training sortie the same day, with the same cloudbase at 1200ft, I was more aware of the risk of a near miss or potential mid-air collision – and guess what, there was another near miss, this time with a low-wing aircraft flying along the motorway at 1000ft, same as our circuit height.



Above
The well-worn circuit around Damyns Hall

His low wing and our high wing meant that we were in each other's blind spots; fortunately it was a near miss and not a collision.

What was the error I made during the second sortie? I kept to our normal circuit height despite having had a near miss with the helicopter that was staying in VMC below cloudbase, just as we were.

On the second sortie, I should have made our circuit height 500ft due to the cloudbase at 1200ft, with the knowledge that other aircraft would probably fly over our circuit pattern at just below cloudbase, as it is open airspace. Still, I am pleased to say I lived to fly another day, with a lesson learnt about risk/threat assessment and error management. □

• *Deepak is the CFI at the London Airsports Centre at Damyns Hall, londonairsports.com.*

Still crazing after all these years

John Hunt on the best stuff for cleaning screens and windows

> Polycarbonates are vulnerable to degradation caused by sunlight and a variety of chemicals – including cleaners

OWNERS of aircraft with polycarbonate screens or windows, often referred to as Lexan, Makrolon or Tuffak, will have experienced cracking or crazing at some point.

This material is widely used on many of our aircraft, including all the Skyranger family, X-airs, Euro-Foxes and Ikarus C42s.

It's popular because its excellent strength properties and ability to cold-form tight bends without cracking or deformation makes it particularly suitable for curved screens, requiring no specialist tools or equipment.

It's also easy to cut with tin snips, guillotines etc, with drilling and fixing easily accomplished using basic tools.

Shatter resistance is extremely good, as is evidenced by its use in riot shields, although these are typically 4-6mm thick as opposed to the 1.5-2mm on our aircraft.

So what's not to like?

Polycarbonates are extremely vulnerable to degradation caused by both sunlight and, more importantly, a variety of chemicals. Examples I have seen over the past 20 years include:

- Windows completely destroyed through over-exuberant refilling of wing tanks on a EuroFox.
- Cracked rear windows on a Skyranger Nynja as a result of a few drops of unleaded from the filler.
- Severe pit marks on the brand new screen of a Skyranger as a result of Loctite threadseal splatter from the propeller nuts.
- Cracks radiating from pop rivet holes on side windows in a EuroFox, Skyranger and X-air.
- Short and long cracks emanating from the circular leading-edge cut-out on a Skyranger screen and vertical cracks on a C42 (I'm not sure if the C42 was Lexan, though).
- Stress cracks and crazing in the smooth bends of various aircraft.

Below
The range of cleaners you can use

While the first three are easily explained, the latter three are not.

In the case of the older Skyranger Classic and Swift 1, it does appear that the area around the leading edge cut-out is particularly stressed, and combining that with the variability of cutting this in a home-built, it's very likely that this is a factor.

Certainly, this area needs carefully smoothing with wet and dry to remove any sign of sharp edges or cuts that can start cracks very easily when under constant stress.

Additionally, adding root fairings allows the diameter of the cut-out to be increased, thus reducing the stress at this point, as well as adding a degree of sunlight protection in this stressed area.

In older cases, the damage could be the combined effect of stress and sunlight, but sometimes it appears relatively quickly and is less easy to explain.

The cracking seen around pop rivets is often explained away as overzealous use of a hand riveter, or not holding the riveter straight; however, that is less convincing.

A common question asked on the Facebook Skyranger group is: "What do you use to clean your screens?" The answers invariably include:

- Water (mere pennies)
- Mr Sheen (typically 99p)
- Pledge (99p)
- All sorts of multi-surface cleaners. (typically 99p)
- AutoGlym Fast Glass (£7)
- Clearview (£15)
- Plexus (£18)

My favourite, though, is Aldi Powerforce multi-surface cleaner (49p), which I have always believed to be good as Plexus and Clearview, and I would challenge anyone to tell the difference.

Someone invariably suggests that there is a need to be careful when choosing a suitable cleaner because many of them contain substances that will damage the polycarbonate, but is this true?

In order to measure the effect of a variety of cleaning substances, I set up a simple test.

Taking a single strip of Lexan approximately 20mm wide and 300mm long, I attached it horizontally to the edge of a bench using a G-clamp. On the other end I hung a standard set of vice grips, creating a simple 90° rounded bend.

I then tested each of the above cleaning solutions by applying a small quantity on the curved area and leaving overnight.

I know, from experience, that applying either unleaded fuel or Loctite threadlock in this manner results in complete failure in less than 10 minutes, with the Lexan turning to something that resembles granulated sugar.

Finally, I tested a specialist polishing product that I have used as the final part of the removal of scratches. This is part of the "Micromesh" system which is extremely effective at removing both scratches and haze from Lexan. After 12 hours there was again crazing, although it was very slight.

Results

With the exception of plain water and Autoglym, the results were almost identical for all of the cleaning products.

In all cases, close examination of the area that had contact with the cleaner was crazed when held at certain angles to the light and was considerably weakened.

Bending the area through 90°, as if I was cold-forming a bend, resulted in breakage.

It has been suggested that the propellants, which are inflammable, cause this failure, but I also tried spraying Plexus, the specialist Lexan cleaner, into a pot and waiting some time before manually dabbing the resultant cleaner onto the Lexan. While the result was less crazing, after 24 hours there was still a significant amount.

I also tried all these cleaners over a greatly shortened test period, 10 minutes, and again there were signs of slight crazing on all but water and Autoglym Fast Glass. However, neither of these is very effective at cleaning or polishing windscreens.

Conclusion

Returning to the three less easily explained cracks described earlier, it now seems most likely that these are the result of the use of such cleaners.

The cracks around rivet holes could well be the result of capillary action with remnants of the above cleaners trapping between the Lexan and the rivet head and degrading the material over time.

Likewise, the more stressed areas on the Skyranger windscreens around the leading edge cut-out and around the 90° rounded bends could also be affected by both these cleaners and the effect of sunlight (and therefore ultraviolet light), on the material.

Plain water and Autoglym were the only cleaning agents that did not affect Lexan in my tests, but both are fairly ineffective at removing bugs and marks. The end result is not comparable with the other cleaners.

It is disappointing to note that the two specialist cleaners, at more than £15 a can, cause the same crazing.

These simple tests have highlighted the difficulty of cleaning polycarbonate screens effectively without damaging the material and its chemical composition.

Probably the best solution is to remove the majority of marks and bugs using either water or Fast Glass, and then perform a final quick polish with either Plexus, Clearview or, as I will continue to do, Aldi's Powerforce.

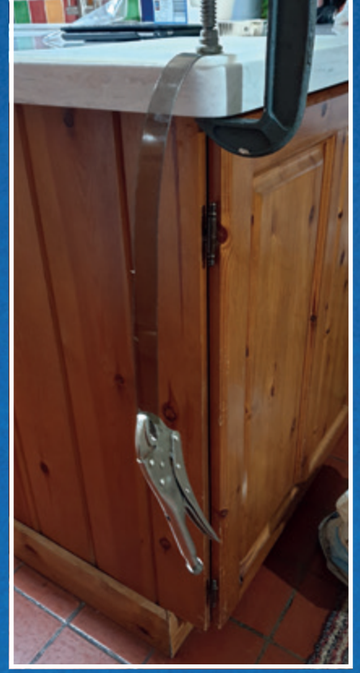
Be careful not to get any of these into the rivet areas, and remove the cleaner swiftly. This will not guarantee against future cracking, but should prolong the polycarbonate's life.

And finally…

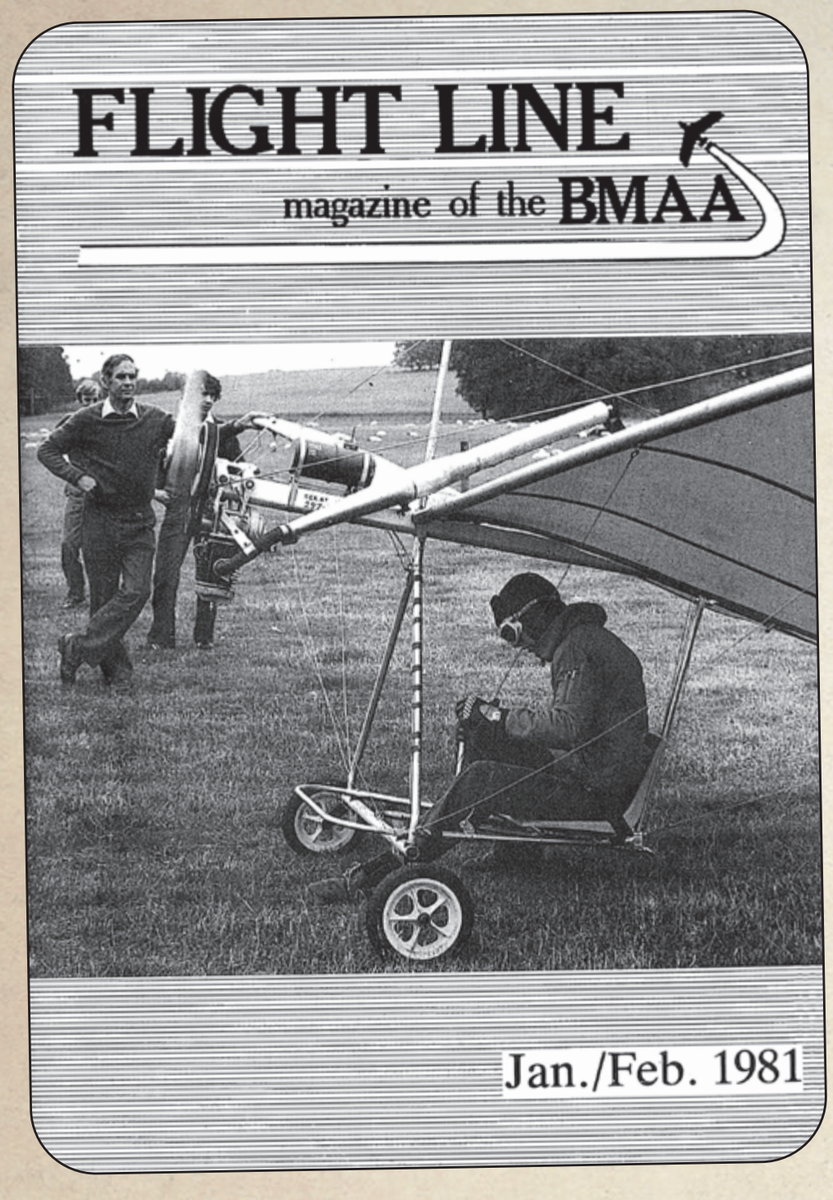
Following my initial tests, I have now gathered information from a number of other reputable sources who have tested the following in a similar manner.

- TLAC CAV-OK (£16)
- Demon Shine (£7.99)
- Vuplex (£9.45)
- Autoglym Instant (£6.56)
- Showroom Shine (£14.99)
- Novus No 1 Plastic Clean (£5.66)

Of these, only Novus No 1 seemed not to cause crazing, although it was not particularly good at cleaning either. □



From top
John's cunning test rig; cracking around rivet holes; and crazing after applying everything except water or Autoglym



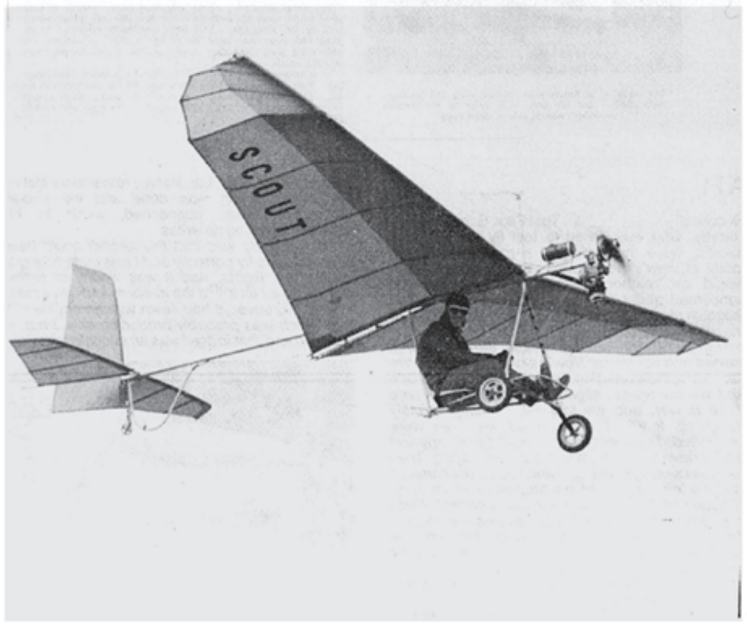
THE SCOUT ARRIVES IN THE U.K.

By Ian McMillan

The Scout microlight aircraft was born in Australia over three years ago; its designer, Ron Wheeler, has sold over 350 units. He has a well established club to cater for his customers, The Associated Scout Owners Club of Australia, who produce a bi-monthly magazine called "Scout-About".

This microlight taildragger is of completely conventional aircraft layout, control is by rudder and elevators which are operated by a joystick between the pilot's knees. A throttle and mag. switch complete the controls. The secondary effects of the rudder are sufficient to allow balanced turns even at steep angles of bank, the control surfaces are large and this, coupled with the long moment arm of the fuselage and the position (directly in the prop-wash), provides generous and positive controlability.

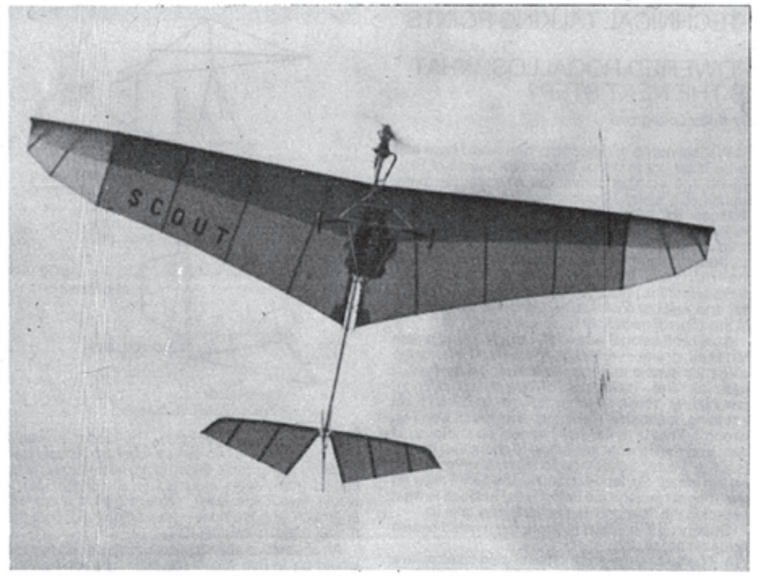
This machine is made from dural tubing and heavy duty dacron sailcloth. All the control wires, bracing wires, and fittings are of stainless steel. It can be rigged by one man plus an assistant from car top to flying in approximately 20 minutes. Rigging consists of hooking on the tail surfaces and the main wings, which are tensioned against one another. The motor is supplied with the machine and is a 175 c.c. two cycle, single. Ignition is solid state and never needs touching. Drive is via two Polyflex "V" belts at a three to one reduction. This makes the machine relatively quiet to operate.



Flying the Scout

On first seeing this little aircraft I instantly felt at home with it, perhaps this is due to the striking conventionality and simplicity of the layout, it looked and felt like a mini version of the light aircraft I had been used to flying. After a very thorough read of the handling notes provided with the Scout, I felt ready to fly!

I handswung the wooden prop and the motor fired up. Sitting in the seat I fastened the lap strap and "chocks away". The Scout handled well on the ground as I taxied to the end of the field. The tailwheel is steerable and a quick blip of the throttle with the stick hard left spun the tail round until the aeroplane sat facing the wind. After a few hours of careering up and down the paddock (the first runs were like a "drunken duck") I soon got the hang of keeping straight using sideways movement of the stick as opposed to rudder pedals. Lift off and

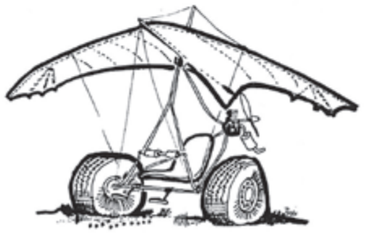


landing again in a straight line was a normal progression from ground runs. The undercarriage is of spring steel and can take an incredible hammering as it absorbs the roughness of the ground.

The take-off method of the Scout is simplicity itself. Open the throttle fully and apply full forward stick to lift the tail off the ground, when the aircraft is in the horizontal attitude the stick is returned to the central position. As flying speed is reached a gentle back pressure on the controls rotates the machine and it settles into a steady climb. I held the climb until I was a few hundred feet above the ground and then allowed the stick to return to its central position and the airspeed to increase, adjusting the throttle to cruise setting.

In the air the Scout is very stable, permitting "hands off" cruise. The large dihedral ensures good lateral stability in turbulent air. Turns are performed by moving the stick to one side or the other. In fact, with the Scout, you just push the stick in the direction you wish to go. It is as simple as that. Its stall characteristics are extremely easy on the nerves; it is not a proper stall, rather it mushes down with a steady rate of sink. The wings stay level at all times due to the washout built into them (this washout varies in flight depending on load). The makers claim it is possible to land from this semi-stalled condition. Landing the aircraft is a case of closing the throttle to quarter and allowing the machine to take up its own attitude, the thing actually descends in the correct position! At about three feet from the ground a slow back-pressure on the stick will flare the areoplane and a greaser of a "three-pointer" is soon perfected.

This, then, is the Scout Microlight Aeroplane, with an endurance of about 40 minutes on the standard tank and a payload of 195 lb. It represents real flying without the headaches of conventional aircraft ownership. Similar in performance to the powered hang-glider variants but at the same time radically different in handling and looks. Myself, I feel it is bound to generate a loyal following in the microlight world.



40 YEARS AGO

Be prepared... to stay on the ground

by **Norman Burr**

LONG before Paul Hendry-Smith renamed his revised Escapade the Scout, there was another Scout microlight in the skies above Britain. Allegedly.

I say allegedly because although this ultra-simple fixed-wing with a tiny single-cylinder Pixie engine, single-surface wing and two-axis control proved quite popular in its native Australia, in British weather conditions its performance proved so marginal, and its absence of roll-control so daunting, that most examples stayed firmly on the ground.

The first microlight I ever saw was a derigged Scout at Chipping Gliding Club in 1982, where a member had dipped his toe in the waters of powered flight and, I suspect, thought better of it. To this day I have never seen one rigged, let alone flying.

Nevertheless, something good came of my trip to Chipping, as the Scout's owner kindly invited Wendy and me back to his flat to talk microlights, I being embarrassingly ignorant of the subject at the time, and during the course of our conversation I learned that the BMAA had a vacancy for an editor. So that hospitable glider pilot, whose name I have unfortunately forgotten, is the reason I am writing this…

However, we digress.

On these pages we reprint *Flightline's* report on the machine which, uniquely among early fixed-wings on the UK market, weighed under 70kg. The author is very keen on it, but then he was not exactly a dispassionate observer: he was the importer!

Flyability was improved a couple of years later with the substitution of a Robin engine (still single-cylinder) and addition of a wing-warping to provide roll control, thus creating the Super Scout. *Flightline* tested one in May-June 1984 and found the changes worthwhile, but in truth the Scout's day had come and gone: this was still not a cross-country machine.

The pages reproduced above may have featured an aircraft which would turn out to have little future in the UK, but in other respects that issue would prove to be a harbinger of the BMAA's future direction.

Dave Cook was trying a VJ-24 in America, the design which would inspire the Shadow. A man called Brian Cosgrove had just produced a book on learning to fly microlights. And a new editor, Nick Regan, had taken over at *Flightline*.

One result of the editorial change was a marked improvement in print quality.

Another was the first appearance of cartoonist Bill Newton's inimitable overweight microlighter, Beef Hefty-Too, who would go on to appear in almost every A5 edition.

Beefy finally hung up his helmet in 1990, so the character will mean nothing to younger members. Nevertheless, whatever your age, if you like execrable but very clever aviation puns, you owe it to yourself to turn to p18 of Jan-Feb 1981! □

Like all Flightlines *up to the end of 1984, this edition has been digitised and can be downloaded free from bmaa.org. All* MF *issues from January 2009 are also available online.*

Those were the days, our friends

Celebrating four decades of the BMAA, early member **Dave Smith** looks at the astonishing progress of microlighting

Above
A mid-Eighties fly-in at Hougham, including two Goldwings, a Sirocco, Flash 1 and 2, Eagle, and Dave's Striker

IN 1979 I was hang gliding, but had a major dislike of turbulence. The dichotomy, however, was that any kind of gliding effectively needs turbulence to remain aloft.

I'd read with great interest an article in *Wings!* by Hiway Hang Gliders' Frank Tarjanyi, in which he described constructing a powered trike around one of Hiway's canteen chairs.

I could copy this and fly my hang glider on calm summer evenings, I thought, but with a young family, I couldn't afford one of the very early commercial single-seat trike offerings from Hiway, Hornet, Mainair, Skyhook, Chargus or Ultra Sports.

So I built my own trike to fly under my Solar Wings Typhoon hang glider (the Typhoon Extra Large became the XL we all know). I took it to Langar airfield for a first flight after a telephone (pre-Zoom) briefing from my old hang gliding instructor.

"Don't forget to pull the bar in when she rotates," he said; good advice.

I'd joined the BMAA during the trike build in 1981. In those pre-internet days, that was the *only* way to get information. On joining, the association sent me early copies of *Flightline*, and I savoured every word.

I'd missed some of the early personal spats between the founding members. These were all wild personalities, as you'd expect from such an insane venture. One of the reasons for building my own trike was not just my impecuniosity, but also the fear that the CAA would shut the whole thing down, since such flying was technically illegal.

The CAA was something of a "gentlemen's club", and these larger than life founders of what was initially the British Minimum Aircraft Association gave no quarter when dealing with it.

We owe our very existence to them, and I thank them dearly. Of course, they were bound to fall out but, by the time I joined, there was a degree of stability.

Part of the CAA's eventual acquiescence came from the promise of proper training, so the BMAA recruited instructors (often hang gliding instructors and others who'd been messing around with microlights since the very start), and defined a training syllabus and exam scripts.

Getting the exam questions approved by the CAA was interesting. One of the three multiple-choice answers to the question: "What would you do if lost?" in the nav paper was: "Find a safe place to land and ask."

It was the correct answer, but the CAA had a hard time with that one…

By August 1982, I'd obtained my "A" Certificate, passed my exams and flown the requisite cross-countries to get my hallowed PPL(A) Group D.

Unfortunately, at exactly the same time three high-profile crashes with dual fatalities brought microlighting to the attention of the tabloids and the Government.

Despite the fact that the fatalities all occurred on the same type of machine – the Scorpion, a flawed copy of an American fixed-wing two-seater, and that the accident rate was otherwise minor – the Government tasked the CAA with "sorting it out", and *BCAR Section S* was born.

Preparation for *Section S* was a hugely busy period for the BMAA and its various officials. Data sheets (TADS) for machines had to be written and approved, and information on homebuilts and "orphans" (factory-built aircraft which were no longer supported) had to be collated.

Inspectors and check pilots were recruited and trained, and "godfathers" were appointed to oversee orphans and gather numbers and information, so these could be inspected against a standard.

I became all three, and my chosen orphan was the Ultralight Aviation Systems (UAS) Storm Buggy. I had one at the time, and pre-dating the Hornet, it was a side-by-side trike, powered by a 340cc Sachs single or an asthmatic 430cc Rowena twin with a nylon three-bladed propeller, whose blades you had straighten at regular intervals in front of a hot fire!

You can only imagine the number of variations of wings that were paired with trikes in the days before the off-the-shelf two-seater. ▷

Above
A fly-in at the Leicester MAC circa 1982, including a Weedhopper (incapable of flying out of ground effect with its Chotia single), several trikes, an Eagle and the Microbipe

Right
UAS Dual Storm Buggy and Dave's son (now 39) modified to have a 440 Robin engine after junking the Rowena 430, at a BMAA fly-in at Woburn Abbey circa 1984. "In the background is a prone trike complete with dog carrier second seat, flown in by, who else, Bill Brooks!" said Dave.

Below
Dave in his homebuilt trike at Langar before its first flight; and **(above)** taking off in the trike

▷ The BMAA recruited Peter Lovegrove, an expert on (and builder of) gyroplanes, to become Chief Inspector, and he collated a huge number of defect reports submitted by inspectors and owners so that common problems could be identified. Then as now, he was an extremely fastidious old-school engineer, and was, I think, horrified by what we called acceptable engineering practice.

Early types of microlight used high revving two-stroke engines directly driving tiny propellers. These created quite a row, and powering an aircraft barely faster than 25mph, the noise lasted a long time if you were out in your garden enjoying peace and quiet and a cool drink.

Christened the mosquito effect, it wasn't especially loud, but it was annoying and persistent, and as a result, the noise certificate was born.

The responsibility for obtaining this fell on the manufacturer, but for homebuilts and orphans, the CAA came out for free and did an actual test. I did several.

The way it worked was that the CAA man came to your designated airfield and set up a microphone on the ground, and you had to fly back and forth over it at full throttle at 500ft. The height was confirmed by measuring your wingspan and scaling up from a Polaroid shot he took as you passed overhead.

It was actually quite difficult to do, as at full throttle the damned things climbed, so it was a case of starting low and hoping to hit 500ft immediately overhead.

Having got his noise profile, the man from the CAA would then use an algorithm that took account both of peak noise, and also time while above a certain level, thus accounting for "nuisance".

Eventually, the full airworthiness process was established, and annual inspection and permits sorted, before another problem occurred. The CAA became concerned (rightly, it turned out) that many microlights were overweight.

A change in definition had moved the previous 150kg maximum empty weight to 390kg maximum all-up. In a lot of cases, the type was certified significantly less than 390kg.

Because microlight pilots were considered too dim to perform individual weight and balance calculations, the MAUW had to include two 90kg persons and a full fuel tank (three-axis types had to remain within CofG limits in all combinations of crew and fuel).

A concession of reducing the crew weights to 86kg (weren't we slim then?) helped a bit, but in some cases it became quite difficult to achieve. Even fuel tanks had to be physically limited in capacity. Every five years, the aircraft had to climb on the scales to remain legal. I still have my bathroom scales!

By the mid to late Eighties, microlighting and the BMAA had matured, and the changes since then have largely been driven by the market.

A brief interest in sporty single-seaters, driven by the recognition that a maximum wing loading of 25kg/m² could result in quite a pokey machine, resulted in the Chaser and the Bandit (whose wing would reappear much later on the Quik).

But two-seaters were much more popular, and justifying getting approval for such a low volume of single-seaters was impossible.

The Rotax 912 also replaced what were, in fact, quite reliable two-strokes. I can still remember Roger Pattrick's amazement at the Flying Show when Mainair exhibited a one-off 912-powered Blade built for an export customer. He thought no one would stump up for such an expensive version. He was wrong. And the Quik itself was a world beater.

Since then, there's been a sad move away from flexwings to three-axis.

SSDR – the most amazing development – was pushed hard by the BMAA, despite the certain knowledge it would lose valuable permit renewal income.

This has restored much life back into flexwings and shown that a major joy is getting your feet off the ground cheaply, and not just racing around the UK and Europe as quickly as possible.

In the other direction, of course, the 600kg "microlight" is imminent.

We have a lot to thank the BMAA for. □

Above A very young Roger Pattrick being tested by Alpha pilot Ken Wrigley, with two Hornet Ravens, one Dave's, in the background

Zero to hero, in 24 hours

Bernie Quinn was sent solo after a brief tow down the runway the day before

IN May 1981, I joined a group at Langar airfield hoping to become a microlight pilot.

The day started with a brief lesson on the theory of flight, then after lunch we took turns to sit in an Eagle while it was towed by car down the runway.

The next day, our instructor Barry Gordon announced in his distinctive American drawl: "Today, we go solo."

I thought: "Well obviously, he doesn't mean me; I only turned up yesterday."

I was wrong. An hour later Barry strapped me in, fixed an altimeter on my wrist and in the same reassuring drawl advised me to stay below 500ft.

It was the equivalent of: "Look, I know you've never been on a motorbike before, so try not to go over 100mph."

I survived the 10-minute circuit, but then with no further flight time under my belt, there I was a couple of weeks later, alone in a field preparing to fly a secondhand Eagle which I'd assembled with the help of an instruction manual.

No regulations, no licence, no permit; it was a bit like buying a flatpack lawnmower.

That's the way it was back then, and thankfully the Eagle was a very forgiving aircraft.

Of course the sport had to become regulated, and over the years I found myself along with many others under the comforting umbrella of the BMAA.

Today I look forward to the monthly mag and always appreciate the progress and the changes made.

It's a lifetime since I was first hooked by a feature in the *Sunday Times* magazine, with pictures of Gerry Breen aloft in an Eagle over the Severn Bridge. □

Right
Bernie Quinn in ostrich outfit at Blackpool for a 1983 *Daily Mirror* stunt, with Malcolm McBride en route to Scotland in a Phantom

Our very own Action Man

Actually, **Merv Middleton** makes even James Bond look like Mr Bean

I RETIRED as a Colonel from the military after 38 years' service, not a bad jump for a spotty-faced kid who joined as a 16-and-a-half-year-old private.

I served in all the areas of armed conflict and wars around the world, plus quite a few undeclared ones.

My wife compares me to the comedian Kenny Everett and his depiction of Ugandan dictator Idi Amin, the self-declared King of Scotland who was famous for his never-ending row of medals, when I reveal mine every Remembrance Day parade.

For a long period, I specialised in mountain warfare, and was fortunate to climb extensively many of the world's highest mountains, including Everest.

Without doubt the north face of the Eiger was the hardest, with its objective dangers generating three days of adrenalin-filled challenges.

I learned to fly microlights at the Ridgerunners Flying School at RAF Halton under a military scholarship, the accelerated training resulting in a licence in 21 days.

I'm a member of the Broadmeadow Flying Club in Hereford, a close-knit group of aviators who over the years have ventured all over Europe. I act as a roving reporter for *MF* and take the lead in *Touring Tips* articles.

What did you want to be when you grew up?
Coming from a military background, I was only ever going to join the armed forces.

Best and worst subjects at school?
Best at geography and all sports, but struggled with French, which is strange, as I can now speak German very well and get by in Spanish.

Favourite book?
The Worst Journey in the World by Apsley Cherry-Garrard about Scott's ill-fated expedition to the South Pole in 1910-13. What a story of human endurance and tenacity in extreme conditions!

Favourite film?
Zulu: best way of losing three hours of your life every Christmas!

Favourite country?
England. I've wandered the world from deserts and jungles to the high Himalayas, and nothing beats returning home.

Which two people have been most important in your life so far?
My father and long-suffering wife Trudie.

Vices and virtues?
Intolerant and impatient, but loyal and trustworthy.

When were you happiest?
Achieving a hard-won goal.

Saddest?
Attending the funerals of family and close comrades, too many to mention.

1

Any regrets?
None.

What would be your perfect life?
I would be quite happy to run it all again.

Glass half full or half empty?
My days of hard drinking are long gone; three Stellas and I'm history.

Other hobbies?
I cycle about 15,000km annually, plus motorbike touring and skiing. I used to sail and white-water kayak and have canoed around most of the British Isles, but age has now caught up.

Sum up your lesson for life in a sentence.
You only live once. It's not a rehearsal, so make the most of it.

Describe yourself in five words.
Content, at peace with myself.

How did you get into microlighting?
I learnt to hang glide initially, then switched to paragliding and was fortunate to be able to fly from many mountainous areas around the world.

Microlighting was the next logical progression, to go further, faster and be less affected by the wind. ▷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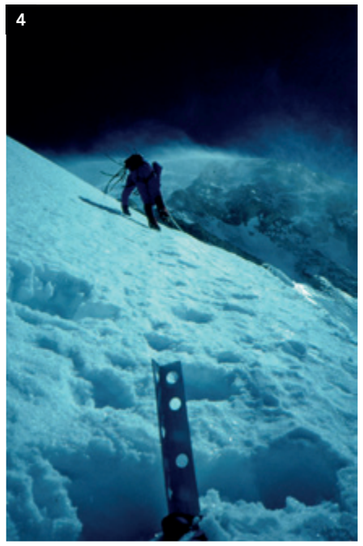
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Facing page Contending with a blizzard in the Andes

This page
1 Tromso, Norway, June 2007
2 Eurostars round Nordkapp, June 2007
3 Ice climbing in the Rockies
4 On Everest fighting the jetstream

This page, from top
At the Icicle Fly-In; Merv on the west ridge of Everest; and in a snowhole at 26,000ft on Everest

Facing page
Broadmeadow Farm fly-out to the Scilly Isles in July 2015

How long have you been in the BMAA?
Since 1995. I maintained my LAA membership concurrently, but let it lapse after the recent failure of the amalgamation talks – the eternal debate.

Why microlights?
Convenience more than cost. Broadmeadow Farm, where I fly from, is close and friendly, but restricted by planning to microlights only.

What do you fly?
Dynamic WT9.

How many hours P1?
2310.

Which do you prefer, flexwing or three-axis?
I did my penance in flexwings, but age and the lure to tour long distance at speed means three-axis wins, so it's the dark side for me nowadays.

Aviation highlights?
Flying my Eurostar with a group of close friends around the Nordkapp in snow flurries on the longest day.

Flying across northern Finland and Sweden in my Dynamic through the night with the sun never setting.

Sitting in the cockpit of Concorde over the Atlantic, and being a passenger in a Hawk out of RAF Valley doing the low level circuit, to name a few.

Worst moments?
At Newtownards airfield, watching our Editor Geoff Hill, all seven feet of him, unwinding like a snake from a child's plastic seat after several hours flying an AX2000 from Fishburn. What a contortionist. It drove me and many others to drink.

Have you ever crashed?
Not while in command! I have had quite a few close shaves: walked away from a Puma helicopter engine failure over the jungle in Belize which killed many.

A Sea King engine problem over the Atlantic saw my abseil line cut away, followed by a 60ft fall in body armour with a weapon, which wasn't fun and resulted in concussion, broken limbs and a lengthy swim, but at least I didn't land on the ship.

While in Iraq, I left a C130 for a short notice unplanned operational deployment, and the aircraft departed and was shot down by insurgents 20 minutes later.

It felt strange to walk into the unit bar hours later seeing myself posted as missing, presumed dead. I was just in time for my own farewell round of drinks, and just managed to stop the padre visiting my home with the bad news.

Best aircraft you've flown?
That would be my first solo flight in an AX3 – well, certainly the most memorable, since the engine failure after I left the circuit provided some entertainment. My instructor deemed my dead stick landing sufficient to fulfil that part of the syllabus.

Worst?
I've been fortunate to fly a variety of microlights, but the Chevvron wasn't very inspiring: low-powered, unreliable, poor visibility and a brick has a better climb rate. Apologies to owners out there.

Things that flying's taught you?
For me, it is all about forward planning, so that the actual flight becomes stress-free.

472.5kg as a maximum or greater?
I'm definitely a 600kg man, but more importantly the adopting of the European build standards.

Happy with what the BMAA does?
Yes. I can't stand the moaners who never contribute. Nothing is ever good enough for them, while not acknowledging that our council members are primarily unpaid volunteers, and that the staff do a cracking job.

Would you like to see any changes?
Not within the BMAA, but the CAA seems to be permanently tied in bureaucracy and red tape, and its website is a disgrace.

What do you think of *MF*?
Enjoyable. It captures the spirit of microligthing with endless variety. Mind you, as a frequent contributor, I would say that.

Favourite airfield in the UK?
I'm frequently drawn to the Scilly Isles, which are far enough away to always be an adventure. That said, Sandown appears in my logbook the most, but I defy anyone not to fall in love with Glenforsa. We really are spoilt for choice.

Favourite country visited in a microlight?
I don't really have one, but Germany might just take it for the huge choice of airfields, terrain, unlimited unleaded fuel and warm welcome.

Dream aircraft, money no object?
To be honest, I have it already, but if pushed I'd get a newer Dynamic.

Future flying plans?
I've been fortunate to fly extensively in Europe, so nowadays tend to just check the weather. One year I was all approved up for Iceland via the Faroes, but when snow fell, I found myself in Alicante sunshine three days later. Around the Baltic states is still unfinished business.

Tell us a surprising fact about yourself.
I spent two years seconded to the Mountain Division of the German Army, and gained my Alpine Guides award. □

Lure of the Lakes

Sharon Cox and **Capt Braders** tackle more scenery than you can shake a joystick at

The route through the Lakes

HOOKED by John Bradbury's suggestion of visiting a couple of new airstrips, I agreed with enthusiasm to a trip to the Lake District.

We set off from Dairy House Farm intending to land at Rossall Field then Troutbeck, with Cark as a potential diversion if the clouds were too low over the Lakeland mountains. We'd been before to Berrier, where the owner Roger Savage had been flying gyrocopters for years, and several Cheshire Flyers had already flown to his new strip at Troutbeck.

Our main instruction on seeking PPR was to stick to the runway, park somewhere off it and avoid taxiing "cross-country" to the hangar, as the ground was very boggy.

Otherwise we were welcomed as pilots who knew how to land at slightly challenging strips, since John had previously landed at Berrier, which has a somewhat intimidating approach over lumpy ground higher than the runway.

Once through the Low Level Corridor, the challenge was spotting Rossall, as a grass strip among flat fields.

James Walker, the CFI of Attitude Airsports there, has recently recruited as AFI Danny Roach, whose book *Inside the Cyclone* David Bremner reviewed in December *MF*.

As well as James, we found another pilot there who turned out to have been a student of John's in the 1980s, when John was an AFI at Rufforth, and is still flying microlights thanks to Capt Braders, for whom he was full of praise.

James rustled up coffee and tea in between praising the new EuroFox he teaches in, and then we were off to Troutbeck.

With our plan of a direct route up Windermere scuppered by murky conditions, we flew over the Lune estuary and Glasson Dock at the seaward end of the Lancaster Canal, which I'd visited in 1982 conducting a research project for the Department for Transport on coastal shipping and inland waterway freight transport. It was strange to see it from the air, which gives a wholly different perspective.

The harbour at Glasson opened in 1787, following the demise of Lancaster as a port, and allegedly at its height was the largest port in the northwest, importing cotton, sugar, spices and slaves.

The Lancaster Canal was important for swift distribution of cargo landed at the port into the heart of industrial Lancashire. Today, Glasson is still a small port handling over 150,000t of animal feeds, fertilisers and aggregates every year.

We carried on, looking east continually to gauge the suitability for heading towards Keswick in terms of cloud cover. You can't blame me for being sensitised to avoid flying in super-murk, given the Woolacombe Beach experience John wrote about in the last *MF*. The cloud was in patches, though, so it wasn't really a problem this time.

The terrain eventually flattened out, and we hunted for Troutbeck airfield. The runway there is on a slope, and I was happy that this was John's leg (I suspect he was too) because there was a good chance of it being sticky with the amount of rain we'd suffered lately.

In the end, the strip was fine; although we only realised how wet it was on jumping out of the plane, onto that coarse moorland grass which looks OK until you put weight on it and then becomes a puddle which soaks your shoes or boots.

A little after us, a yellow Piper Cub arrived, flown by a pilot from Denham who had spent the summer flying around Britain, which he was enjoying immensely. He was on his way back south, taking his time, and with his Broughton fold-up bike and tent, he planned to camp for the weekend and await good enough weather to venture onwards.

Troutbeck owner Roger Savage then turned up and explained his vision to have touring aviators stay there; he welcomes campers and is planning at some point to put some limited accommodation in a mezzanine within the hangar, which is already equipped with toilets, kitchen and dining area.

He loves the idea of packing a tent and touring around small airfields, and he's clearly a convert to microlighting: he's thinking about buying a Eurostar, and was keen to pick John's brains about issues, problems and what sort of prices might be involved.

It's great that there are people like him prepared to invest their time and money in providing such facilities for the rest of us to enjoy.

My turn to fly us home, and as luck would have it, the low cloud had largely cleared away and we enjoyed a very scenic flight back. I love to fly lower than the tops of the hills, especially down U-shaped glaciated valleys; remember those from geography days?

Seeing the natural landscape is one of my favourite things about flying, and in this country we're blessed with a huge variation in landscapes.

Facing page Sharon over Thirlmere and aiming for the gap

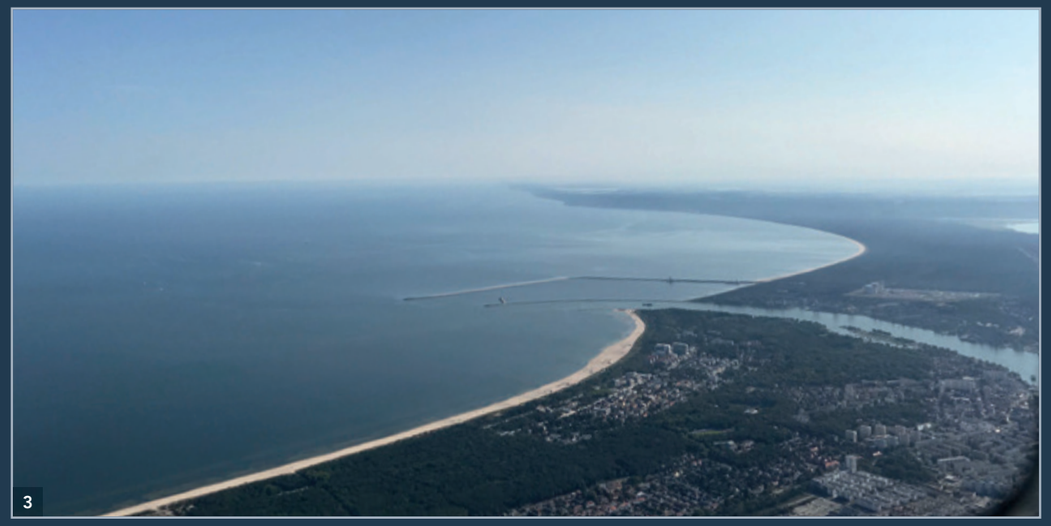
This page, above Glasson Dock at the end of the Lancaster Canal, and the Lune estuary; and **(below)** Troutbeck is a great spot – campers welcome with PPR, and a pub not far away

Windermere was spectacular as usual, busy with sailors and steamers plying the lake and a couple of military jets in the distance, heading in the opposite direction.

Even better, when we got back to Dairy House Farm after an hour and half, it was close to a new record for Capt Brader's bladder.

A great day, flying among some of England's most spectacular scenery. What's not to like? □

• *Troutbeck is currently closed for the winter and will reopen as it dries out. Roger will keep pilots updated on the airfield's Facebook site.*



Goodbye, cruel world

Freed from lockdown, **Eddie McCallum** and pals headed to somewhere called Europe

STRONG winds put paid to a lot of our flying in Northumberland towards the back end of 2019 and the beginning of 2020, and then, just as the winds seemed to have eased, we were hit by Covid-19.

A lockdown descended around the world, and at times we wondered if this horrendous dark cloud would ever lift.

As the release from the spring lockdown slowly arrived, so did the flying, and the first adventure to celebrate our freedom was on.

From Northumberland we headed to Le Touquet in three planes, and it was no great change to have to abide by the local rules there on mask wearing and social distancing.

From there, we followed the vast beaches of Normandy and Brittany, passing many of our old favourite haunts such as Dieppe, Saint-Valery, Deauville, Caen and Avranches before finally landing at Dinard-St Malo for a wonderful night in the old walled town.

It's 20 years since I last dropped into St Malo in my Quantum flexwing, and the friendly reception I received then was just as good this time.

Next day we were off to the Cherbourg-Octeville area of France, flying St Malo's Emerald Coast and then the length of the Cotentin peninsula. Although slightly lacking the romance of St Malo, Cherbourg – with its fine local cuisine and very reasonable hotel prices – nevertheless makes a night there a must.

After that, it was 350 nautical miles back to Northumberland, via a stop at Sywell for full English breakfasts.

Late August saw a bit more easing of restrictions, but with Spain, France, Belgium and Holland coming under the UK 14-day quarantine rule.

Not to be beaten, we turned to the east. Mark Williams and I flew in our CT2K from Atheys Moor to the wonderful airfield at Forward Farm in Nottinghamshire, where we met up with Jason Williams and Jim Donaldson in a SportCruiser.

We were soon coasting out from Clacton-on-Sea for a long water crossing, missing the large airspaces of Belgium and Holland. Then if you just follow the big barges south-east, you'll soon find Germany.

After just under 4h we were at Munster Osnabruck for fuel, customs and coffee, then an early evening flight through Lower Saxony to Hildesheim, a city of ancient history and strong beers.

Next morning, in idyllic weather we flew to Barth on Germany's Baltic coast, a very friendly and busy airfield with lots of small planes coming and going.

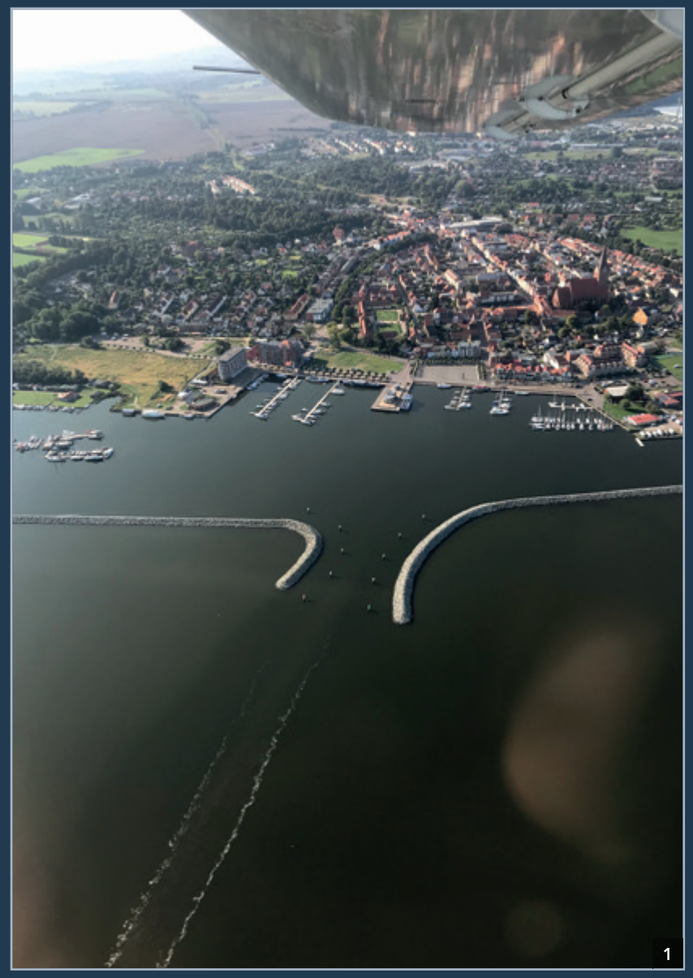
The town was quiet and closed early in the evening, and getting a hotel was quite a task.

Many flyers have asked us how we plan on which airfields to go to. Well, that's easy: apart from the weather, it has to be near something interesting and close to a town.

After an overnight stay there, we filed flight plans for Poland, and Bagicz airfield. Situated only 100m from the coast and sandwiched between two seaside towns, it fitted the bill. This was a wonderful flight, meandering in and out of the many inlets, islands and lagoons of a millpond Baltic.

We made a small detour to Peenemunde, although we didn't land there. The town was bombed several times in the Second World War to disrupt German secret weapon development, and production of the V2 rocket, the world's first long- ▷

1 Dave Crozia, Eddie McCallum, Peter Wakefield, Jason Williams, Garry Fearing and James Horne at Cherbourg harbour
2 St Malo
3 Crossing the border into Poland
4 The Dutch holding back the sea and harnessing the wind
5 Peenemünde, the birthplace of the V2, is now a museum. Note the rocket on the right of the museum



2

3

“Passing Skegness, we were level with its helter-skelter!

1 Leaving Barth in Germany
2 From left, Tagged, Eddie McCallum, Mark Williams, Jim Donaldson and Jason Williams
3 Some pretty amazing hotels being built on the Polish coast

▷ range guided ballistic missile, was moved elsewhere. The rockets weren’t unveiled until the final months of the war, yet still killed thousands.

There was a bit of military airspace to avoid, but Langar and Gdansk Information both looked after us. It meant a long final for an equally long runway – undoubtedly a relic of the Cold War – but we were warmly greeted by Tagger, who fed us his home-grown apples and home-made cake.

We’ve almost always managed to find some nearby hotels on our flying adventures, but the Mona Lisa where we stayed was unique: a four-star 19th Century mansion close to the 07 threshold.

The next day, we set off west along the Baltic coastline, then north towards Kiel and eventually over the border into Denmark, where we were handed over to Copenhagen Information and the sound of the best English-speaking voice I’d ever heard. She seemed a true Anglophile.

Our destination was a small airfield called Tonder, close to the North Sea, where we received a great welcome from Oscar, who sorted out our fuel and gave us a short tour of the hangared planes.

From there, we followed the German lowlands of its North Sea coastline and its zig-zagging sea defences and offshore islands to Emden, a very busy airport with helicopters in and out, taking oil and gas rig workers to the North Sea.

One of the helicopter companies helped us out with digs close to the city and even closer to the Cherry Tree Bar, which sold more than just Old Sparrowfart.

In the air early on our last day, we flew over the Dutch islands, then turned to coast in over north Norfolk.

For the whole of our five-day adventure, we had been blessed with glorious sunshine – until we hit a cloudbase of 500ft up the Lincolnshire coast. At one point, passing Skegness, we were level with its helter-skelter!

Still, by the time we reached Northumberland, the clouds had lifted to welcome us home. □

A splendid adventure

For 17-year-old student pilot **Aleena Joshy**, a first flight to the Isle of Wight was an amazing experience

ON 5 September, pilots and student pilots of London Airsports Centre flew from Damyns Hall Aerodrome to the Spamfield Microlight Fly-in, held annually at Sandown Airport on the Isle of Wight.

Fortunately, I got to fly as well as part of my pilot training. I was delighted and overwhelmed when I was told about the flight, particularly since it was going to be the farthest I’d travelled as a student pilot. The pilots who flew with me were Deepak Mahajan, Domenico Cioffi, Aarti Gokani and Geoff Martin.

On the day of the flight, my first task was to learn to make a flight plan for a route to Sandown through Gatwick Airport.

After the preflight checks for the three Pipistrel Alphas, wearing our masks and lifejackets, we lined up on the runway in a staggered position to conduct a formation flight, which involved an aircraft leading ahead and the other two on either side.

Our plane was on the left, and at first I found it difficult because I was either flying ahead or lagging, especially when we started to experience an updraft, which felt like flying over a wave.

However, later I used a method to keep the aircraft on my right at the same position on my window at all times, which helped me to change speed and height accordingly.

When we arrived at Gatwick, my instructor let me take some photos of the runway, and I was even able to spot an easyJet aircraft land.

Aarti Gokani, a fellow student pilot, said later: “I have flown from Gatwick many times in my life, but never seen it from the eyes of a microlight.

“When you are in an airliner, you are a mere passenger, and you only get a tiny window from which you cannot see anything at all.

“Because of the Covid-19 times, the planes at Gatwick have larger intervals between flights because there are not as many flights, and we were so lucky to have been granted the permission to fly over directly.

“A three-plane formation is not allowed to do that most of the time. We were fortunate, and it indeed was a trip that we will never forget. The coastline all the way was breathtakingly beautiful.”

Even with a lifejacket, Aleena felt nervous coasting out over the briny deep

Reaching the destination was the most pleasing scenery for me. Before our trip, I had never been to the Isle of Wight and had only seen it on a map, so when I flew over the English Channel, I could not stop myself from deeply observing the tranquil waters, and although I was wearing a lifejacket, I felt anxious at first. As we got nearer to the airfield, I felt a strange adrenalin rush and eagerness. Unlike travelling by airlines, the experience of piloting a microlight was remarkable because you could see more details on the ground, from meadows, hills and lakes to towns, bridges and castles.

After the flight, I researched how much faster it was to travel to the Isle of Wight in the Pipistrel than using a car, and it was approximately three times faster.

Hopefully, in the future, I can fly to more unique destinations in this type of plane. □

AT 17, Aleena Joshy, a Year 12 student at Dartford Grammar School for Girls, is Deepak Mahajan’s youngest student at Damyns Hall.

As if that wasn’t impressive enough, two years ago she enrolled on a Young Reporter’s Scheme to improve her writing. After eight articles, she won the scheme’s Best Feature and Top Reporter awards across Year 10 and 11 in London.

She’s enrolled again this year, focusing more on aviation-related articles, particularly microlighting. Her dream is to become a pilot, an aeronautical engineer and a freelance journalist. This is one of her award-winning pieces.

A window of wonder

Nushin Elahi talks to weatherman Simon Keeling about aviation, air masses and the chaotic world of weather

"IT'S a vast subject," said my friend and fellow pilot Ted, shaking his head as I enthused about the various air masses and the weather patterns they were likely to produce.

You see, I was fresh off one of Simon Keeling's Weather School courses for pilots who want to get a better grasp of that most changeable of subjects, meteorology.

Simon can communicate his love of all things weather with anyone: "The weather story is my passion, and I love doing it," as he puts it.

It all started as a little boy obsessed about the whys of weather, and he has never stopped asking the questions. Instead of the rather tedious subject so many pilots encounter with their PPL or NPPL, once touched by Simon's infectious enthusiasm, you will either understand why it's happening, or at the very least, simply watch and say "wow!"

> The idea that you can predict weather for a postcode is ridiculous

Left
Simon Keeling: "The weather story is my passion, and I love doing it"

I spoke to Simon, himself a trainee pilot at Halfpenny Green, wondering whether his vast knowledge of the weather meant he struggled with it like the rest of us. When I ask what came first, weather or flying, I get a fast rewind through his career.

"I've been fascinated with weather since I was knee-high to a grasshopper. We had some very severe winters in the Seventies, and I kept asking why," he said.

So off to the library the family went, and he ended up copying out the books to keep the content. Then followed shortwave radio.

"I was always fascinated by aviation and flying. I'd tune into Volmets, and when I discovered I could get data from the other side of the world, from Moscow and Washington, I just fell in love with it."

Even Simon smiles at the thought of himself as a kid meticulously recording the shipping forecasts for about five years. In fact, he still has them.

When you are writing out mock TAFs and plotting up charts, it's no surprise that you can start a little business selling your forecasts to local radio stations. But despite working for a local weatherman as a young teenager, he wanted a proper job, so he went to work in a bank.

Inevitably, that didn't last long, and he returned to his passion. Some people will recognise his friendly face from a stint on national television. He was 23 and working night shift at a weather forecaster when he got his lucky break. A GMTV presenter didn't turn up for his shift after a Christmas party, they were desperate for a stand-in, and no one else was available. Simon's dubious employer suggested he dress up as Father Christmas in case he made a hash of it, but Simon was having none of that.

"I do it as myself or not at all," he said, and did so well that for the following five years he'd leave home at 2am, be driven down to London for a 6am appearance and be home by 11am.

"Oh, don't be too sorry for me: it was a chauffeur-driven Jaguar," he hastened to add.

He was one of the youngest members of the Royal Meteorological Society at the age of 12, and even though he left school with only three GCSEs, he's now a Doctor of Meteorology and has been a guest lecturer at the University of Birmingham for many years.

The school results simply reflect his absorbing passion – he was too busy teaching his peers about physics and weather to worry about anything else, but eventually he was mixing in international circles with weathermen and decided he needed the piece of paper that comes with degrees.

The doctorate was a natural progression, and now he's inspiring a new generation of weather forecasters.

At the same time, his business acumen has never waned, and he was building up a company that offered weather consulting services for pilots, sailors, farmers and all manner of other businesses.

"Aviation was always there. I just never had the opportunity to learn to fly, working shifts and building up my own business," he said.

He describes himself as "a perennial PPL student", having started years ago, but he's now determined to get flying properly. He started on a Grob, "much more unforgiving than the Cessna 152 I'm learning in now."

"I suppose I was fearful of looking at it from a forecaster's point of view, not a pilot's. Now with around 20 hours under the belt, I have a greater appreciation of things like crosswinds, or the human factor of flying."

> I was fearful of looking at flying from a forecaster's point of view, not a pilot's. I now have a greater appreciation of the human factor of flying

"In fact, when we talk to pilots planning a trip, you are more often psychiatrist than forecaster and you know from the things they say, they want you to hold their hand, to let them chat through things."

One thing I took from Simon's course was how important it is to take a look out of the window.

"The weather hasn't read the textbook. It's OK not to understand what it's doing. I will sometimes end a shift and still not know what it's doing. Everybody gets caught out. It's a chaotic system, and there are very seldom right and wrong answers."

Weather School sees all types of pilots sign up, from commercial to GA and microlights. Simon started the business in 2000 and has been running 10 to 20 courses a year for pilots and sailors alike.

"Covid forced my hand. I was thinking of doing courses online, but now I do the same number but for five times as many pilots. The growth has been exponential," he said.

Back in the day, the Met Office Forms 214 and 215 that we pilots take for granted were only available through subscription.

Now that they are free online, Simon is determined to ensure that they are the first place the pilot looks for their forecast and that they know how to use them.

I confess starting his course with little regard for them, and a preference for the ease of a weather app, but I am a convert.

My biggest takeout was to look at the bigger picture, and I can now watch with fascination as a front passes overhead and know roughly how long we have before the "warm sector" passes.

One of his secret weapons is the Skew-T diagram, which gives a vertical view of what clouds are doing, where they top and bottom and therefore a much more accurate idea of where you will get rain.

"Why don't more people know about this?" I asked him.

"Weather forecasting hasn't really kept up to date and I would love that to happen," was his answer.

Another element he believes pilots should use is the Beaufort scale, working out what their personal windspeed limits are and how that translates into what they see around them.

He is outspoken in his dislike of "sexy" apps which are all based on the same modelling and don't have a human interface to interpret them.

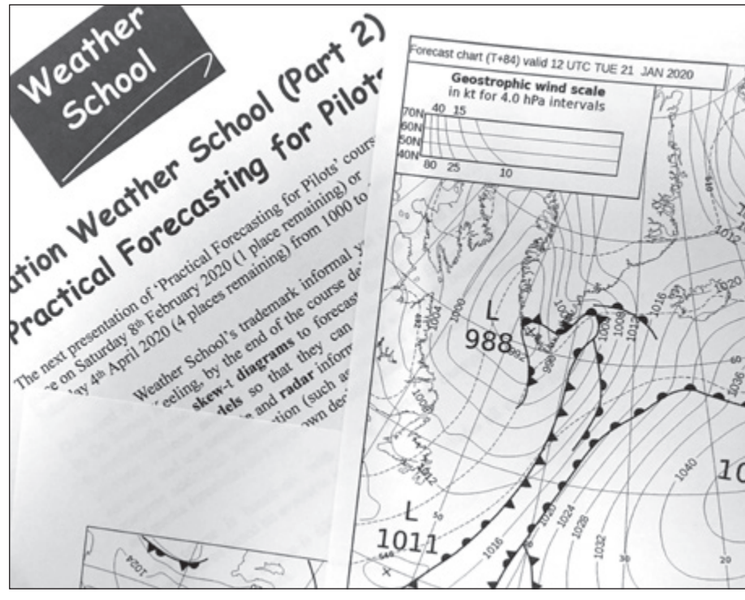
"It's similar to Covid and the modelling comparisons. It all depends on the human interpretation that decides what is right and wrong and adjusts accordingly. Modelling is only a tool, not an absolute. The idea that you can predict weather for a postcode is ridiculous," he said.

Simon's dream is to improve safety in aviation and help pilots get better at interpreting the weather.

"There is greater demand for more weather knowledge. As more and more info is available online, I want to help pilots see the wood for the trees.

"Often the information doesn't match up with what the pilot is experiencing. You need to be using your own eyes. Metars can be wrong. Microlight pilots are often more sensitive to weather, while in a GA plane you can power up and through it," he said.

With Simon Keeling at the helm, there is every chance that meteorology will go from being in the realm of pompous pontification to a field of exciting chaos we can all enjoy. □



Below
Simon's weather school

Tees and pees normal

Aviation has some very strange superstitions, rituals and values, says **Deepak Mahajan**

I HAD an argument with an old friend the other day while discussing a non-aviation topic, and it got me thinking about the rituals I follow in my aviation work, the values I bring into it and how they affect my personal life.

I wonder how you, dear reader, are affected by the values in your life that you bring into your recreational aviation, and the rituals that you follow and perform before and after committing aviation.

Firstly, though, I needed to understand better the meaning of the terms rituals and values.

Rituals are usually seen as a religious practice, so I got to wondering if pilots practise any rituals and ritualistic behaviour in their aviation hobby, and why. And could ritualistic behaviour by pilots be useful or pointless, or worse still, erroneous and harmful?

Values are generally thought to be moralistic, cultural, personal or societal norms or standards of behaviour, which when followed give a positive outcome in their particular context. What values do pilots have and bring into their aviation hobby?

I guess rituals came into being from the earliest days of human beings living in a group. A step by step ritualistic behaviour can be easily taught and easily learnt and remembered and policed. This

Some pilots wet the tyres before flying, but in the USAF they obviously wet each other

> “”
> I'm so lucky that if I bought a lottery ticket I believe I would win the jackpot

can help enhance safety at the most basic level, or become, for example, the very elaborate sequence of a mating dance, passed on from generation to the next without really understanding the original intent of the ritual.

In the hobby flying world, what would you call a ritual related to your flight, and how would it affect you and your flight and your behaviour in general in a positive manner?

For example, a student pilot is introduced to the check list and a walk round inspection of the aircraft before and after flight. I would term this behaviour a ritual, when learnt correctly with the understanding of why it is done and how. The instructor should explain in detail why each step is a flow chart with “go, no-go” decisions.

This is totally different from a religious ritual where the young Padawans are expected to learn by rote, without much in-depth understanding of the reasons why.

I have come across many anecdotal stories about some of the rituals performed by military pilots, with the superstition that these actions would help keep them safe during combat missions. Do private pilots have some ritualistic behaviour or perform rituals before flight?

I know a retired commercial pilot who would always urinate on or near the tail of the aircraft he was about to pilot.

He had developed this habit/ritual during his long commercial career. Walking around the aircraft in the cold dark night or pre-dawn with no one watching and no comfort facilities available, he told me, was probably the reason why he developed it, and it continues to this day. He thinks it kept him and his passengers safe and alive through his flying career.

Some pilots with a religious inclination make the sign of the cross before takeoff and during the approach to landing. Others have photos of family or religious icons on their instrument panels which they touch or kiss before takeoff and landing.

My personal experience lacks any high risk commercial or military aviation, but I must confess to one superstition.

I've been involved for over 40 years in flying hang gliders, trikes and microlights, with many adventures, and have survived 37 emergency landings in microlights without injury to myself or my passengers.

I believe I'm so lucky that if I bought a lottery ticket, I would win the biggest jackpot… but then I would lose my luck in aviation, so I refuse to purchase a lottery ticket, and remain alive instead.

The only rituals I perform in aviation are to follow the correct checklist for the correct type of aircraft. I've seen experienced pilots and engineers follow the incorrect checklist for preflight inspections just because they were given a printed sheet. Without an inquisitorial mind, we can easily slip into ritualistic behaviour, which could lead to disaster in a worst case scenario.

When we question the nature and value of any particular ritual, in aviation or in other walks of life, do we improve our chances of survival? In my opinion, yes we can, because knowledge is survival in aviation, rather than unthinking behaviour.

The values we bring into our aviation will most likely be those that we have in our daily lives; be they sedentary, sporty, intellectual, practical or theoretical.

Over the last 30 years of flying with several thousand different people in several countries, I have noted that each individual brings their pre-conceived notions and ideas into the cockpit. Their attitudes towards flying and during their command of the aircraft reflect their values.

Some are extra cautious, leading to hesitation and potentially poor decision-making in a fast-moving scenario where the correct and instant action is required, for example in an emergency situation.

Others are careless; some are too narrowly focused on one thing at a time, and some are far too garrulous in the cockpit, leading to loss of attention and missed clues of a potential problem developing.

There are many different personalities in aviation, as in any other activity, and we all bring in our own value set. Which values would make us a safer, better pilot? Which values do you attach the most importance to?

What are the rituals and values that a perfect pilot brings into his personal aviation practice?

Answers by email please to editor Geoff Hill at ghillster@gmail.com. □

Wintertime, and the living is freezy

But warming news ahead on leaving EASA, airspace changes and 600kg microlights, says Geoff Weighell

WRITING this in early December, England has come out of Lockdown 2, and I'm sure if the weather wasn't so grim there would be lots of flying going on.

We've had a forecast of sleet for later in the week, and Scotland a forecast of proper snow. After such a brilliant summer, most of which I spent in isolation, the change in weather is a bit of a shock.

However, we continue to work behind the scenes to maintain a high service level and continue to represent the interests of the BMAA members wherever there is an opportunity.

Easier without EASA

I've been preparing a response to a CAA consultation on how future regulation can be improved following our withdrawal from EASA. Even though our aircraft have always fallen outside EASA regulation for airworthiness and pilot licensing, other EASA regulation such as the Standard European Rules of the Air (SERA), apply to us just as much as the certificated world.

The most recent example of this was the change to VFR requirements for flight in Class D airspace. You will remember that the change was from an aircraft flying below 3000ft amsl just remaining clear of cloud when in Class D, to having to remain at least 1000ft vertically clear of cloud.

In many instances, this creates problems such as having to fly lower and closer to ground level than might otherwise have been ▷

Above Having to remain at least 1000ft vertically clear of cloud should be scrapped when we leave EASA (photo: James Mather)

▷ the safer option; the Manchester Low Level Route is an example of where this could be a problem.

So now from 1 January the UK can make changes to legislation that was imposed by EASA, and I expect that the Class D VFR change will be one to go.

Airspace alert

Another consultation starting in a few days' time is on the establishment of a permanent danger area in the area around Llanbedr aerodrome in Wales for the operation of unmanned aircraft, ie drones.

If successful, this will be the first civilian-operated danger area in the UK; the rest are military. The proposal is supported by a letter which you can read in this month's letters pages from David Young of Kemble, who is also a partner in Llanbedr, promising that GA traffic will still be able to use the airfield, as an air traffic service will be provided at all times.

Another recent similar application off the coast of east Scotland failed to appreciate the need to keep airspace available when not in use as a danger area, and certainly didn't get the support that I expect the Llanbedr proposal might get.

To see the detail and give your response, go to the CAA website at airspacechange.caa.co.uk/ and search Llanbedr.

While on airspace, the CAA has launched its new procedure to review the classification of airspace. The concept is to look at areas of controlled airspace to see if they are justified, and if not, propose change.

Earlier in 2020 the CAA conducted a consultation asking individuals to propose volumes of airspace that in their opinion were not warranted. This led to a list which hopefully will form the first workload for the CAA to tackle. Ultimately, new powers are needed to enforce change.

At the moment, although anyone can propose an airspace change, it is expensive and time-consuming, which is why airspace controlling authorities are not inclined to give back unused airspace.

The new powers proposed will enable the CAA to require a change, and so at last some airspace may come back to Class G.

600kg latest

Finally, a 600kg update. Work is going ahead very well to revise the microlight airworthiness and manufacturing codes to enable 600kg microlights to be a reality in the UK towards the end of February.

Plans for licensing are also going well, with the likelihood that at the most some differences training will be required for today's microlight pilots to fly the heavier and possible more complex aircraft. At last, we are seeing the finishing post. □

Microlight insurance guide

Aircraft type	Pilot / Aircraft build	Aircraft flight and ground	Aircraft ground only	Third party	Student	Passenger	Student pilot life	Licensed pilot life	Unlicensed pilot life
Fixed-wing regulated	Licensed / Approved mfr	CSP, T, H, AIB, V	CSP, T, H, AIB, V	BHPA, CSP, H, V	CSP, SC, T, H, V	BHPA, CSP, SC, T, H, V	SPI, SC, H[2]	SPI, SC, AIB, H[2]	n/a
	Licensed / Amateur-built	CSP, T, AIB, V	CSP, T, AIB, V	BHPA, CSP, H, V	CSP, SC, T, H, V	BHPA, CSP, SC, T, H, V	SPI, SC, H[2]	SPI, SC, AIB, H[2]	n/a
	Student under instruction	CSP, T, AIB, V	CSP, T, AIB, V	CSP, V	CSP, SC, T, V	n/a	SPI, SC	n/a	n/a
Flexwing regulated	Licensed / Approved mfr	CSP, AIB, V	CSP, AIB, V	BHPA, CSP, H, V	CSP, SC, T, V	BHPA, CSP, SC, T, V	SPI, SC	SPI, SC, AIB	n/a
	Licensed / Amateur-built	CSP, AIB, V	CSP, AIB, V	BHPA, CSP, H, V	CSP, SC, T, V	BHPA, CSP, SC, T, V	SPI, SC	SPI, SC, AIB	n/a
	Student under instruction	CSP, AIB, V	CSP, AIB, V	CSP, V	CSP, SC, T, V	n/a	SPI, SC	n/a	n/a
Powered parachute regulated	Licensed / Approved mfr	AIB	AIB	BHPA	-	BHPA, T	SPI, SC	SPI, SC, AIB	n/a
	Licensed / Amateur-built	AIB	AIB	BHPA	-	BHPA, T	SPI, SC	SPI, SC, AIB	n/a
	Student under instruction	AIB	AIB	-	-	n/a	SPI, SC	n/a	n/a
Fixed-wing deregulated	Licensed pilot	SC, H[1], AIB, V[3]	SC, H[1], AIB, V[3]	BHPA, SC, H[1], V[3]	SC, H[1], V[3]	n/a	SPI, SC, H[1&2]	SPI, SC, H[1&2], AIB	n/a
	Student under instruction	SC, H[1], AIB, V[3]	SC, H[1], AIB, V[3]	SC, H[1], V[3]	SC, H[1], V[3]	n/a	SPI, SC, H[1&2]	n/a	n/a
Flexwing deregulated	Licensed pilot	SC, H[1], AIB, V[3]	SC, H[1], AIB, V[3]	BHPA, SC, H[1], V[3]	SC, H[1], V[3]	n/a	SPI, SC, H[1&2]	SPI, SC, H[1&2], AIB	n/a
	Student under instruction	SC, H[1], AIB, V[3]	SC, H[1], AIB, V[3]	SC, H[1], V[3]	SC, H[1], V[3]	n/a	SPI, SC, H[1&2]	n/a	n/a
Powered parachute deregulated	Licensed pilot	H[1], AIB	H[1], AIB	BHPA, H[1]	H[1]	n/a	SPI, SC, H[1&2]	SPI, SC, H[1&2], AIB	n/a
	Student under instruction	H[1], AIB	H[1], AIB	H[1]	H[1]	n/a	SPI, SC, H[1&2]	n/a	n/a
SPHG unregulated	Unlicensed pilot	AIB	AIB	BHPA	n/a	BHPA	n/a	n/a	SPI, SC, AIB

KEY

AIB Airsports Insurance Bureau: 02380 268351, aib-insurance.co.uk
BHPA British Hang Gliding & Paragliding Association: 0116 289 4316, bhpa.co.uk
CSP Crispin Speers & Partners (CSP): 020 7977 5699, cspinsurance.com
H Hayward Aviation: 020 7902 7809, haywards.net
SC Sydney Charles: 01420 88664, sydneycharles.co.uk
SPI Stein Pilot Insurance: 01793 491888, flyingcover.co.uk
T Traffords: 01525 717185, traffords-insurance.co.uk
V Visicover: visicover.com

NOTES

1 Limited to aircraft produced by an approved manufacturer
2 Personal accident only
3 Selected models only
n/a not applicable

PLEASE REMEMBER

- This is a general guide only. Insurance companies will assess each risk individually before deciding whether to offer cover.
- Not all insurance policies are the same. Read the small print carefully!

FLIGHT PLANS

CLUBS! Planning an event? Mail details to ghillster@gmail.com for inclusion in Flight Plans.

READERS! This list is subject to change after we go to press, due to the current Covid situation. Check with organisers before going anywhere!

1-2 May: POPHAM. ***Microlight trade show including BMAA AGM.*** The annual Microlight Trade show is back in 2021 at Popham Airfield. AGM scheduled for 1 May at 13:00. More information to follow.

29-31 May: SANDOWN AIRFIELD. ***Spamfield.*** The great annual fly-in to the Isle of Wight, complete with hog roasts, music, dancing and of course the irrepressible Danial Subhani. See eghn.org.uk for details.

3-5 Sep: SYWELL. ***LAA Rally.*** More details to follow.

International events

26 Jul – 1 Aug 2021: USA. ***EAA AirVenture.*** The biggest sport aviation show on earth, held annually at Oshkosh airfield, Wisconsin: https://eaa.org/airventure. □

COUNCIL AIRWAVES

Flight of the Phoenix

The association is stronger than ever, so onwards to 2021, says **Bill Davis**

"YOU cannot rise from the top. You must rise from the bottom."

As an Arizona boy who was raised on the outskirts of Phoenix, I remember primary school stories of the eponymous mythical bird that went down in flames but arose from the ashes to become a symbol of rebirth.

The rising Phoenix featured prominently as artwork in most public places in the city, juxtaposed with other displays of cowboys and Indians… an odd mix.

My first ever flight in an aeroplane was at Sky Harbour Airport in Phoenix, and in the main terminal, there stood a massive bronze creation of the Phoenix bird that towered overhead.

I suppose that image is seared in my brain, because it was a day to remember and one that nearly equalled the excitement of my first flexwing flight many decades later.

Fast forward to the start of 2021, and it feels like we are also rising from the ashes. There's a glimmer of hope and enthusiasm for a return to some form of normality following the most disruptive year most of us have ever experienced.

> "The year ahead is shaping up to be an exciting time for microlighting

With the pandemic nearly behind us and with some fantastic changes being introduced like the new 600kg limit, the year ahead is shaping up to be an exciting time for microlighting.

I'm also encouraged by the resilience of our organisation during this past year. Due to the efforts of the BMAA staff, the support of its members and decisions taken by the council, we enter 2021 in a positive position, and in many ways we're a stronger organisation than we were before.

I for one intend to make up for lost time. Having averaged 250 hours per year in my flexwing over the past 20 years, my flying hours dropped to 30 in 2020.

Like most of the microlight community, I missed the joy of flying and the camaraderie of fellow pilots who share a similar passion for our sport, so for the year ahead I plan to fly more, visit more airfields, attend more events and rise from the ashes. I hope you'll do the same. □

microlight FLYING

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EDITORIAL

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CONTRIBUTING TO *MF*

Yes please! *MF* is a magazine for and largely by BMAA members, so the editor welcomes written and photographic contributions. In fact, if he didn't get any, he'd be out of a job! But before writing please take a look at the contributors' guidelines on bmaa.org/files/writing_for_mf.pdf.

Photos Always use your camera's highest settings. Email the editor only the original image file as downloaded from the camera, ideally as a jpg. It should be at least 1MB. No png files please! Also, if you wish to enter the photo competition, please read the rules on microlightflying.org.uk/photo-competition-rules.

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HOW TO GET *MF*

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Back numbers of *MF* (subject to availability) and photocopies of flight tests may be purchased from the BMAA HQ at Deddington. Flight tests and back numbers from 1980-84 and 2009 onwards can also be accessed via bmaa.org.

MF's associated online newsletter, *eMF,* appears mid month and is available free to members and non-members alike, via bmaa.org/publications.

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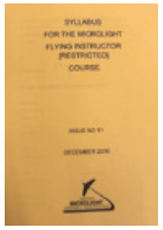

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Tour de Yorkshire

Eight airfields in a day? Small beer for air miles millionaire Paul Kiddell

> Dave Sykes updated me on his latest bid to reach the North Pole
>
> It was a marvellous and busy day of flying

AMIDST the carnage of 2020, I was fortunate to still enjoy some fantastic flying adventures with great microlight pals.

When Boris announced that England would resume a four-week lockdown from Thursday 5 November, on the Tuesday I dropped everything and headed off on a Tour de Yorkshire.

At 9am sharp, I blasted off from Eshott in the Eurostar for Full Sutton in the East Riding of Yorkshire.

Newcastle Airport remained quiet, and the endlessly cheery ATC gave me a zone transit straight over the city with its iconic bridges. I was sad to see St James' Park, home of Newcastle United, which hasn't welcomed any fans since 29 February.

Further south, Durham Cathedral looked stunning surrounded by colourful autumnal trees on the bend of the River Wear. The cathedral site was originally established by Lindisfarne monks fleeing the Viking hordes who pillaged Northumbria's Holy Island in 793.

Crossing the North Yorkshire Moors, the Sutton Bank gliding site was quiet, and soon Full Sutton came into view. This is just two miles east of Stamford Bridge, where in 1066 King Harold's army marched for four days up from London to defeat the 9000-strong Norwegian army, bringing an end to the Viking era in Britain.

It was tough that Harold's army then had to march back south, only to be defeated by William the Conqueror at the Battle of Hastings.

Full Sutton is one of the many former Second World War Halifax bomber bases in Yorkshire, and I landed on the well-drained 772m grass runway 22.

The airfield is immediately adjacent to the Category A Full Sutton high-security prison, which must be avoided (the associated R315 Restricted area that encompasses the airfield only applies to helicopters).

BMAA safety officer John Teesdale conducts fixed, flexwing and instructor training from the airfield, but he was away, so I shared a brew with resident pilots before heading off for my next stop, Rufforth East, just west of York.

This occupies the eastern side of this Second World War airfield (another Halifax base), while a glider club occupies the western side with a north-south runway.

There is clear potential for conflict, but Rufforth doesn't require PPR if you watch the excellent video brief on its website, rufforthairfield.uk.

After flying over York, missing normal flying buddy Alex Smith's standard comment: "It's a shambles down there", I landed on the 500m hard runway 23.

Rufforth East has long been a hotbed of microlighting, and it was great to see the inspirational Dave Sykes, who updated me on his latest bid to reach the North Pole in his highly modified QuikR, G-POLR, which has Edge fuel-injection and a huge long-range tank.

Dave's famous 2011 Australia trip was simply sensational, but the engineering and logistic challenges thrown up by the extreme temperatures and distances on the Polar trip require a whole new level of detailed planning that are quite simply mind-boggling. The survival aspects for a paraplegic pilot are worthy of an article in themselves.

Rufforth has seen some recent positive development, with a new mezzanine level clubhouse with café and additional hangars, and Dave told me that a big fly-in is planned for 2021 with camping and a band. Generously, there continue to be no landing fees for Rufforth East.

As ever, my plan to do up to 10 fields was threatened by my ability to talk to everyone, but I eventually departed for Sandtoft in the Doncaster zone.

Care is required to prevent becoming another infringement statistic, but speaking to the friendly Doncaster controller, it's pretty straightforward.

I landed on the 800m hard runway, formerly the wartime eastern perimeter track of RAF Sandtoft, where young pilots converted to the Halifax.

Another warm welcome awaited, and after a quick bacon sarnie at the excellent and popular airfield Happy Café, I launched in a decent crosswind as some heavy showers started to envelop the airfield.

I recrossed the Humber in light rain before joining overhead Sherburn and letting down deadside for the 830m hard runway 28.

I really like "Sherbs", a busy and friendly airfield with three runways, UL91 on self-service pumps and an excellent restaurant.

However, somewhat irritatingly, it's gone hi-vis airside – I never quite understand the rationale. People often quote the CAA, but it doesn't mandate it for GA airfields, just recommends it for those *working* airside. When did you ever hear of anyone being hit by a taxiing light aircraft?

Oh well, it's still a great place to visit and after a good nose at "Gerbil" (G-RBIL), a sleek Gazelle helicopter, I departed for Breighton.

Passing over Selby on the banks of the River Ouse, Selby Abbey, which dates back to 1069, looked magnificent in the afternoon light.

As Breighton operates aerobatics and non-radio formations on the north side of the expansive 800x45m grass Runway 28/10, there are no overhead joins, and all joins are downwind to the south.

Home of the Real Aeroplane Company and its wonderful collection of historic airworthy aircraft, Breighton is one of my favourites, with a relaxed, welcoming atmosphere, £5 landing fees and a weekend café. Yorkshire Flying School was busy training in its Eurostar and with time marching on, I departed for Beverley.

Approaching from the west, I flew over the former RAF Leconfield which is now the Defence School of Transport, with some intriguing driver obstacle courses littering the airfield.

On 3 September, 1939, the opening day of the Second World War, Whitleys from Leconfield became the first RAF aircraft to fly over Germany, dispensing leaflets, of all things.

A heavy shower was just clearing Beverley as I landed on the 730m grass runway 30. On arrival at the clubhouse, I was subject to my first ever temperature check, and was very relieved to find it didn't involve a thermometer and cold hands!

Another chat and yet another brew with friendly locals, then I departed for Eddsfield, just 15 miles to the north.

Wonderful Eddsfield, operated by Edd Peacock since the 1990s, is a scenic hilltop strip amidst the rolling hills of the East Yorkshire Wolds, and another favourite of mine.

The approach to runway 27 passes over tall trees on short final but the strip is 750m, so it's no drama at all.

Lockdowns aside, the clubhouse is generally always open, and cheap avgas is available. Fortunately, there was no one around for me to strike up a conversation with, and conscious of the short day, I was soon away.

I flew at 500ft across the Wolds, then up and over the Moors, avoiding the 1030ft Bilsdale TV mast which is a great navigation feature.

After a relaxed transit of the Teesside zone, the sun was starting to dip below the horizon, so I decided I only had time for a touch and go at the Fishburn airfield hillside strip and high-tailed it back to Eshott, arriving at 4.30pm, 10 minutes after sunset.

It had been a marvellous and busy day of flying under huge autumn skies. I visited eight fields in the end, a good haul for a short November day, and met so many interesting people along the way.

Bring on the vaccine and a fantastic 2021!

Full Sutton airfield with HMP Full Sutton

Former RAF Leconfield, now t

Autumnal showers near Beverley

Eddsfield

Beverley Airfield

Durham Cathedral