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Spoilt for choice

ven though we say it ourselves, there are some extraordinary articles in this edition. As well as all our esteemed columnists, there are regular features such as I Get Paid For This, which this time highlights the work of Navy Wings' Chief Pilot Andrew David. First Solo is all about the inspiring Claire Lomas MBE, who is now a flexwing microlight pilot despite being paralysed from the waist down.

There's a flight test of the recently type certified (by EASA) Flight Design F2 – vet another new entrant into what's becoming a crowded two-seater market. If you're in the market for a new two-seater, you're spoilt for choice. Of course, most will be going to flying schools.

A new name to *FLYER* is Robbie Garrett who details his journey from being a fairly recent PPL with an IR(Restricted) – the old IMC Rating – to holding a full-fat Instrument Rating via the Competency Based route. It was quite a journey, by no means straightforward, as Robbie dealt with the pandemic, weather and, at times, underestimating the difficulties of flying IFR procedures. Perseverance pays off!

Then there's a behind the scenes look at what happens when the Distress & Diversion (D&D) service receives a Pan call. There's a whole swathe of actions which kick into action to help a pilot get back on the ground safely.

Moving on, regular contributor Paul Kiddell had the most amazing start to 2022 with settled weather over his native North East meaning he went flying... a lot! One of the things I always take away from Paul's articles is just how stunning the UK is, with so many sights to see and explore.

Finally, of course, are the FLYER Club pages where, among other things, we publish some of the photos you've sent us showing the flying you've been up to recently.

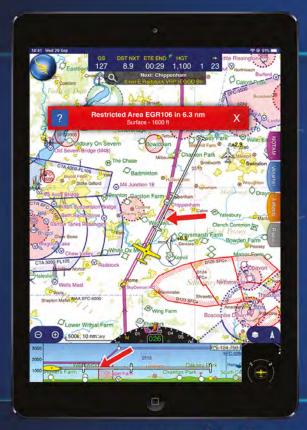
Talking of flying a lot, our #FLY2022 challenge is now supported by Bose, joining Echelon Air as an industry backer. More about the challenge

So, the days are getting longer, the flying season is upon us, let's get out there!



dave.calderwood@seager.aero





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Take-off

Aviation news from around the world - for the latest visit www.flyer.co.uk





Skyports sets up drone ops in London and Oban

Drone company Skyports has made two key moves to develop its operations. First, it has taken over Falcon Heliport in east London, close to the Canary Wharf financial district. Second, it is working with Argyll and Bute Council to develop an Unmanned Aerial Vehicle Innovation logistics hub at Oban Airport.

The council has received £170,000 govt funding towards the hub, which includes a 'vertiport' vertical take-off and landing area and hangar operated by Skyports.

"The Oban Airport hub will be a high-tech base for electrically powered drones to transport medicines, biological samples and cargo between islands and the mainland," said a council statement.

Alex Brown, director drone services at Skyports, added, "We have been working with Oban Airport to look at how permanent drone operations can service the highlands and islands."

Skyports plans to operate both helicopters and eVTOL air taxis from its new acquisition in east London, which has been renamed Skyports London Heliport.

Damian Kysely, Head of Europe & Middle East at Skyports, said, "The acquisition demonstrates our ambition to deliver a network of operational landing sites for eVTOLs and our commitment to making the UK a leader in decarbonisation of domestic aviation.

"The heliport also provides us with an important live operating environment in which we can safely develop and test our vertiport systems, collect operational data and mature our vertiport technologies."

Bicester's Experience

Bicester Motion, the company developing and operating Bicester Airfield, has received a 'positive determination' from the local planning committee for its next stage, The Experience Quarter.

The Quarter includes an active airfield, driving training and handling tracks, plus walking and cycling trails. It is part of the wider Bicester Motion masterplan of four quarters, Heritage, Wilderness, Innovation and Experience, in its drive to become a family orientated 'get outdoors' site mixed with classic cars and aviation.

Duxford's flying days

Two Air Shows, six Flying Days and two special events will take place at IWM Duxford during 2022. A General Aviation Flying Day & Expo will be held at the historic airfield on 23 April 2022, from 10am to 6pm, open to all.

Other events include Duxford Summer Air Show on 18-19 June, Battle of Britain Air Show on 10-11 September, and Duxford Flying Evening on 27 August.

Top left The former Falcon Heliport in east London is now the Skyports London Heliport

Top right Proposed hub for drone ops at Oban

Inset Bicester Motion has the go-ahead for new experiences at the airfield – which remains in operation

Zara's round-the-world record confirmed

Zara Rutherford completed her round-the-world flight on 20 January becoming the youngest person to circumnavigate the world by aircraft solo (female), aged 19 years and 199 days.

The record has been confirmed by the Guinness Book of records. Zara also broke the record for the youngest person to circumnavigate the world solo by microlight.

Zara's flight began on 18 August 2021, flying a Shark two-seat microlight. The flight was delayed on several occasions because of weather. The flight had to be flown in day VFR conditions because of the limitations of a microlight.

One of the purposes of the flight was to raise awareness for STEM-

related businesses, and help reduce the gender gap in Science, Technology, Engineering and Mathematics as well as in aviation.

"Through my round the world trip I'm hoping to encourage other girls to start flying too or enter STEM related careers," said Zara. "Only 5% of commercial pilots are women, and 15% of computer scientists are women! That's an extremely low number considering these are



Above Zara Rutherford - world record holder!

amazing careers with wonderful opportunities."

Zara caught the eye of Virgin's Holly and Richard Branson, who decided to sponsor the trip.

"I can't emphasise enough how heroic her journey is, and how important it is to encourage all young people to follow their dreams and see how exciting a career in STEM can be," said Richard Branson.

FAI confirms Spirit of Innovation speed records



Left Records confirmed! Phill O'Dell flying the electric aircraft created by Rolls-Royce and Electroflight

The world speed records set by the Spirit of Innovation electric aircraft developed by Rolls-Royce and Electroflight have been officially verified.

The Fédération Aéronautique Internationale (FAI), the World Air Sports Federation that controls and certifies world aeronautical records, confirmed two records:

 ${f 1}$ At 1545 (GMT) on 16 November 2021, the aircraft

reached a top speed of 555.9 km/h (345.4 mph) over three kilometres, smashing the existing record by 213.04 km/h (132mph), flown by Phill O'Dell.

2 In further runs, the aircraft achieved 532.1km/h (330 mph) over 15 kilometres – 292.8km/h (182mph) faster than the previous record, flown by Steve Jones.

During its record-breaking runs, the aircraft, which is part of the UK Government-backed ACCEL or 'Accelerating the Electrification of Flight' project, also clocked up a maximum top speed of 623km/h (387.4mph) making it the world's fastest all-electric vehicle.

Phill O'Dell said, "Breaking the world record for all-electric flight is a momentous occasion. This is the highlight of my career and is an incredible achievement for the whole team."

Read *FLYER*'s exclusive behind-the-scenes report on the record-breaking flights *here*.



Take-off

The 'Green PPL' from UK's first electric aircraft flying school



The Velis Electro is the world's first - and so far only – type certified electric aircraft.

SEMET will use both the Pipistrel Velis Electro and its sistership, the Rotax-powered version of the same airframe, the SW121, to complete the Green

Above top SEMET's electric Velis takes off from Blackbushe

Inset Recharging

instead of refuelling!

PPL syllabus, explained Nick West, one of the directors.

That's because the Velis Electro is limited in range and endurance with 37 minutes being the expected time in the air before the aircraft starts using up its reserve.

SEMET points out that the SW121 is also a very efficient aircraft, burning around 18 litres of unleaded avgas or mogas during a typical training

> "Over the course of a 45 hour PPL, without considering the Electric Velis, this would result in a reduction of nearly three-quarters of a tonne of CO2 compared to a conventional PPL training aircraft!

"We're going from a petrolhead culture to an electric one – there's a lot of interest," added Nick.

Included in SEMET's £13,995 Green PPL:

- 45 hours flight training shared between the Electro and SW121
- Nine ground theory exams
- Nine hours of ground school
- Four hours in the Pipistrel VR Simulator
- Pipistrel Electro eLearning Package SEMET Aviation.

Pipistrel's new aircraft: the Explorer



Above Dual Garmin G3X Touch screens are standard

Pipistrel has announced a new aircraft, the Explorer. It's based on the existing SW121 and inherits that aircraft's EASA type

The main differences are the avionics with the Explorer having dual Garmin touchscreen displays, dual radio and a 'haptic' stall warner (i.e., it shakes at the stall). The extra kit means the Explorer is 22kg heavier than the standard SW121, reducing payload. Max weight remains the same at 600kg.

Pipistrel says, "The Explorer's airframe offers



Above Pipistrel's new Explorer. It's the existing SW121 minus the 'Virus' name

unbeatable aerodynamics while being robust for landing on unprepared terrains. It cruises at 2nm per minute, climbs at 1,000fpm, is richly equipped and full of automation."

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Take-off

First flight for first electric racing aircraft

A Norwegian team has made the first flight of its all-electric racing aircraft for the new Air Race E series due to start in 2023.

Nordic Air Racing team made a 10-minute test flight at Tønsberg Airport, Norway in late January, completing four circuits of the airfield at 2,000ft.

The pilot was Rein Inge Hoff. First, he carried out slow flight and control tests to ensure the aircraft behaved as predicted, then using 90kW of power he worked up to 140kt as planned, around 50-60% of the aeroplane's eventual potential in full race trim.

The aircraft is a converted Cassutt IIIM racing aircraft, fitted with 170kW (225hp) electric motor and Li-Ion battery system.

The Nordic Air Racing Team is one of 17 teams who have taken up the challenge to join the series. As well as the Open class, Air Race E is also set to run two other categories - a partly standardised Performance class and an eVTOL class.

Jeff Zaltman, CEO of Air Race E, said, "The first-ever flight of our all-electric racing plane is a milestone achievement, both in the development of Air Race E as an international championship and in the progression of wider aviation technology.

Click the video button to watch the first flight.



Racing's electric Cassutt racer

Right Organiser of Air Race E, Jeff Zaltman, delighted with the first





Swiss pilots on round-the-world 'green' mission



net-zero carbon emissions through green initiatives and technologies, mainly using Sustainable Aviation

Fuel. They lead a team of nine young pilots who call themselves Diamondo Earthrounding, a non-profit initiative, based in Switzerland.

Robin and Matt departed from Zurich on 2 January 2022, heading east to visit multiple airports, cities and sustainable initiatives. They plan to return on 22 April, which would be 111 days of flight, covering 51,000km.

Their mission is to connect worldwide projects for sustainable aviation, raise awareness of sustainable technologies and how to utilise them as well as aim to accelerate aviation's path to net-zero carbon emissions.

Since departure, the pair have completed layovers to initiatives in Austria, UAE and India. In Austria, they called in Diamond Aircraft's HQ at Wiener Neustadt.

Click the video button to watch the team's departure.



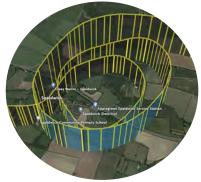


News Extra

Bose joins the #FLY2022 challenge

There's an A20 headset and £2,250 up for grabs as the challenge starts its third month





e're coming up to month three of our #FLY2022 challenge so how are you doing so far? Just to recap, the challenge is to fly at least 2,022 minutes in 2022 – that's 33 hours 42 minutes so not too hard.

Joining us in the challenge is Bose, makers of the A20 headset and guess what? Bose is donating an A20 headset for one lucky winning pilot and a cash sum of £2,250 for another. The A20 has set a very high standard among premium headsets and we can be sure the winner will be thrilled.

Bose joins another company, Echelon Air of Biggin Hill, a Cirrus Partner, which specialises in flight training, adventures, sales, aircraft management and more. Echelon Air is donating £2,022 worth of flying time in one of its Cirrus SR aircraft.

How to win some of these prizes – and there are more on the way – will be revealed as the flying season progresses.

In the meantime, you can keep up with how other pilots are getting on by logging into the *FLYER* Forum for the dedicated thread, called simply, *FLYER*'s #*FLY2022* Challenge. *Click here* to go there.

Recent posters to the forum include Mick W, "A smidge over 6 hrs with today's trip to Gt Massingham 'Roast at the Dabbling Duck", StratoTramp who enjoys posting videos of his flights, and Carol de Solla Atkin who has taken the challenge down a numerical path, "I chose to fly over grid reference N522022,W2022 at 2022' on the local QNH."

Top A Bose A20 headset is up for grabs later this year **Above** £2,022 of Cirrus flying **Inset** Carol's 2022 flight

Further on in this particular edition of *FLYER*, regular contributor Paul Kiddell, had a spectacular January of flying when high pressure settled over the North East. Paul clocked up a big chunk of the 2,022 minutes and has written about his particular 'Winter's Tale' on page 52.

One excellent way of logging time is to participate in the annual Pooleys Dawn to Dusk Challenge.

To quote Pooleys: "The Objective of Dawn to Dusk is to encourage the most interesting employment of a Flying Machine within the limits of competent airmanship and to demonstrate the capabilities of pilot and machine in a day's flying, in the hours between Dawn and Dusk, while undertaking an original and praiseworthy objective.

"All that is required is for the competitor to set themselves a challenging goal with a theme and fly it. You then need to write up a detailed log of your preparations and flight."

Full details of the Dawn to Dusk are here <u>link</u>

Finally for this issue, the season calendar of events such as fly-ins, airshow, expos and the like is filling out rapidly. You can keep up to date with the *FLYER* events listings *here*.

We update the listings regularly when we get to hear of new events.

If you're a club organiser and are staging an event, let us know! There's a form on the link above.

Dates for your April diary

Just a few: go to the <u>FLYER</u> website for full listings of what's on

- 2 April (and the first Saturday of each month)
 Vintage Saturday, Compton Abbas
- 2 April
 Porsche Club & Vintage
 Aircraft Day, Bodmin
- 9 April
 Vintage Piper Aircraft Club
 Fly-in, Sleap
- 16-17 April Easter@Easter Fly-in
- 16 April
 Festival of Flight, Perth Airport
- 16 April
 Easter Fly-in & Spot Landing
 Competition, Sandown
- 23-24 April RRRA Race School, Popham
- 23 April GA Day & Expo, Duxford
- 24 April Wessex Strut Fly-in, Henstridge
- 30 April-1 May Microlight Trade Fair, Popham



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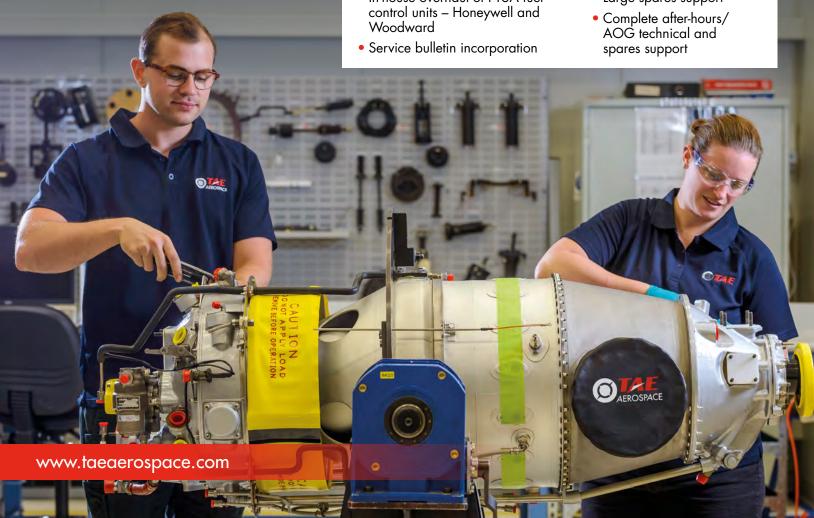
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 - Fluorescent penetrant
- Eddy current
- Engine rigging
- Rotatives balancing
- Fuel nozzle clean and test
- Large spares support



Instant Expert

Future airspace

Ed Bellamy reports on the Airspace Modernisation Strategy, with a reminder to look - and respond - to the consultation's GA proposals

his month things seemed a little quiet on the regulatory news front, but something ever-present is discussion around airspace and the management thereof. There is always some 'airspace change proposal' (ACP), a temporary zone for drones or other policy development floating around.

Last month in his *column*, Ian covered the current consultation on the refreshed 'Airspace Modernisation Strategy' (AMS). I won't repeat the detail of what Ian covered, but just as a reminder the *consultation* is open until 4 April and is worth a look, even if it is just to respond and say 'yes please' to some of the GA relevant proposals.

I suspect even those who get as far as reading the consultation might wonder something along the lines of: what is the process of these changes coming into effect? Will responding to a consultation make any difference? Why might things change when in the past little has happened?

I am more optimistic about the future of airspace in the UK than in the past – nothing is ever going to happen very quickly in this area, but changes have occurred in the last few years that I think will make a difference.

Coordination of airspace change

While individual ACPs come and go, the AMS represents a more serious attempt to impose structure on the process of modernising Britain's airspace. It is jointly sponsored by the CAA and Department for Transport.

Until 2018 the AMS was known as the 'Future Airspace Strategy' (FAS) but was refreshed when FAS struggled to gain traction. An early problem was that individual air traffic service providers (ANSPs) – i.e. the units responsible for ATC at individual airports – had little incentive to co-operate, especially if it meant having to compromise on airspace design or traffic flows when the competing needs of the system were considered overall. There was also the question of who paid for the work – it is very costly to design airspace and airports normally have to foot the bill themselves.

Another issue was the interface between en route airspace managed by 'NERL' (the en route ANSP branch of NATS) and airports – it was difficult to facilitate cooperation in a structured manner without a body having the power to do so. You might assume that was the role of the CAA, but until recently there were gaps in the CAA's statutory powers over airspace and the policy mandate from the Government for the CAA to direct airspace was unclear.

The CAA now has clearer powers to develop airspace strategy and if necessary direct that airspace changes be commenced. In 2019 the coordination function for modernisation was given to something called the 'Airspace Change Organising Group'. Established as a separate unit within NERL, the ACOG will work on resolving the complex interdependencies involved in

airspace reform. This might seem like a conflict of interest, but the reality is that NERL are probably better placed than anyone to perform this function. The ACOG is made up of multiple stakeholders, including representatives of GA.

Although the organisational groundwork was done in 2019, Covid meant that a lot was put on hold until mid-2021, so little has occurred in the intervening period. The timing of the AMS consultation is therefore significant – as we hopefully leave the shadow of Covid, a hitting of the reset button seems appropriate.

Multiple documents

As Ian alluded last month, a chronic issue in aviation is keeping track of the documents that are used to convey information and proposals to stakeholders. For example, in early January several came out in quick succession – a progress update on the existing AMS, a consultation on the future AMS covering 2022-2040 and a further iteration of the ACOG's Master Plan for airspace change. There was also a progress report on the CAA's review of airspace classification in the Cotswold region. In total there were around 400 pages of content. People probably wonder how this all fits together.

Broadly the AMS can be thought of as the high-level package of enablers. Initiatives include transitioning to 'free route' airspace for IFR traffic, removal of traditional fixed airways and more use of time-based separation as airliners transition from the en route to terminal phase of flight. Flexible use of airspace and the progress of the CAA's airspace classification review also feature. The benefits for GA are hopefully less terminal airspace at lower level and more seamless access to those areas of controlled airspace that remain.

The ACOG master plan aims to map the interdependencies and should ensure that when individual ACPs are brought forward, they dovetail appropriately with others. Individual airports will still ultimately be responsible for their own change proposals, but they will have to conform to the principles of the AMS and the outline of the master plan, as well as going through the normal CAA approval process of CAP1616.

GA voice

Compared to the FAS documents of nearly 10 years ago, GA appears to feature a lot more now in the discourse around airspace. For example, suggestions such as the replacement of LARS with more centralised Flight Information Services would hopefully improve and simplify ATC services for GA. That's not to say the battle is won – individual ACP packages must still be scrutinised for local impact and there is a funding question over much of the work. However, at least GA is now in the room regarding airspace, so let's keep speaking up.

More info:

 $\frac{Airspace\ Modernisation}{ACOG}$



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In Brief



Loganair, the UK's largest regional airline, marked its 60th anniversary in February. The Glasgowbased airline was formed on 1 February 1962 and now flies over 70 routes throughout the UK. Isle of Man, Ireland, Norway and Denmark. It serves a total of 34 UK airports, more than every other airline put together.

Leading Edge Aviation has launched a new distance learning programme called 'Vector', allowing aspirational pilots to complete groundschool studies remotely.

The British Army has lowered the minimum rank to become an Army pilot to Private with a recommendation for promotion to Lance Corporal (LCpl). The Army Air Corps cites this as 'one of the biggest upheavals in the way the AAC recruits, selects and employs soldier pilots since its formation in 1957'.



Skyborne Airline Academy has partnered with United Airlines to deliver the Aviate programme that will train candidates with no flying experience to become a Certified Flight Instructor. then joining the airline as a First Officer

NATS, the main provider of air traffic and navigation services in the UK, has reported that air traffic figures for 2021 show the UK aviation industry is still struggling to recover from the pandemic. 2021 air traffic averaged just 41% of pre-pandemic figures, mirroring 2020's 40% average.

easyJet launches recruitment drive for 1,000+ new pilots



easyJet is re-launching its 'Generation easyJet Pilot Training' programme for the first time in two years – since the start of the Covid-19 pandemic - with the aim of recruiting more than 1,000 new pilots over the next five years.

The new advertising campaign backing the launch features real-life easyJet pilots to show that everyone has the potential to become an airline pilot.

Mother of two, Captain Iris de Kan, appears in one of the ads with five-year-old daughter Kiki, illustrating that parents with multi-tasking skills could make excellent

Captain Iris de Kan said, "It's important that girls have visible role models so we can combat job stereotypes and show that anyone with the motivation and passion can turn their skills to being an airline pilot. I love the responsibility and challenge that comes with my job - but it's not as challenging as juggling the demands of a

Above easyJet is featuring some of its pilots including Captain Iris de Kan and SFO Aaron Moseley (inset)

five-year old and a little baby at home!"

easyJet Senior First Officer Aaron Moseley went from being a DJ to training to become a pilot for easyJet seven years ago.

SFO Aaron Moseley said, "I'm really proud to be a black man who is also a role model for the next generation. Growing up, I never had the chance to see or know a black airline pilot."

Former gymnast and now Senior First Officer with easyJet, Nina Le is featured performing a split leap on the tarmac, showcasing her fantastic reactions and hand-eye coordination – key

SFO Nine Le said, "Combining my love of travel with the practical skills I learned on the gym floor really does make being a pilot the perfect match! I love my job and would really encourage anyone who loves a challenge - and of course

great views - to consider it!"

Johan Lundgren, CEO of easyJet, said, "easyJet has long championed greater diversity in the flight deck and this series of ads aims to highlight the extraordinary breadth of skills our pilots have and show that pilots can be found in all walks of life."

To apply to the Generation easyJet Pilot Training Programme, candidates must:

- Be aged 18 or over to commence training (by course start date)
- Have the right to work with unrestricted access across EEA, EU, UK and Switzerland
- Hold a minimum of five GCSEs (or equivalent) Grade C or above, including maths, science and English language
- Be fluent in English (verbal and written)
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I Get Paid for This... Andrew Davis

Navy Wings' Chief Pilot Andrew 'Mum' Davis flies to inspire and remember. Interview by **Yayeri van Baarsen**

How did you get into flying?

I've always had a hankering for aviation. My father worked for Qantas and every time I got near an aircraft as a boy, I'd be trembling with excitement and anticipation. At that time, the quickest way to get into flying was by joining the Royal Australian Navy, which I did when I was 17.

Tell us about your job?

I'm Chief Pilot of the Navy Wings. Although we're a civilian charitable organisation and regulated by the CAA, we're based at RNAS Yeovilton, so we comply with military procedures and receive great support from the Royal Navy. I'm responsible for writing the flying programme, compliance and administration, as well as management of our pilots, who are all ex-Navy aviators with lots of experience in warbirds.

In winter, the aircraft are mostly in maintenance. In spring and summer, we fly up to six times a week, training and displaying at UK airshows and events. It's such a privilege to fly these wonderful historic aircraft in displays.

The Navy Wings' collection includes a Tiger Moth, Chipmunk, Stinson Reliant, Harvard, and a Wasp helicopter. We inherited two Swordfish from the RN, currently under engine refurbishment, and recently were gifted a magnificent Supermarine Seafire, which will form the core of our displays. These aircraft can be skittish in ground contact, but once in the air they're not that different from flying your basic SEP. They're irreplaceable though, so we look after them very well.

What training did you have?

I joined the Royal Australian Navy in 1978 and went straight into military flying training. I was carrier qualified at age 20. In 1984, I came to the UK on exchange to fly helicopters. In 1987, I transferred to the Royal Navy, underwent a Sea Harrier conversion, and flew them for 17 years. Afterwards, I worked as an airline captain on Airbus A330/340 for Virgin Atlantic.

Before becoming Chief Pilot in 2020, I was a volunteer pilot. Our training is graduated: you start on the Tiger Moth and make your way, via the Chipmunk and Harvard, to more challenging aircraft like the Swordfish and Seafire. We still learn every day. In aviation, there's always more training and you're always being checked, it's how we keep high standards.

What's been your favourite flight?

Even though I've flown all kinds of amazing fixed-wing aircraft, I have to admit my favourite flight was in a helicopter...



Mountain flying in a Sea King on the Isle of Arran in Scotland. The weather was beautiful, the location fabulous. What made this flight spectacular, though, was the visual thrill of watching the ground fall away when flying over the mountain edge.

And your favourite airfield?

CVS21, *HMAS Melbourne*, my first aircraft carrier. The challenge of taking off and landing aboard that ship was extraordinary. Our deck was short, so the catapult gave you an incredible acceleration and deposited you just airborne 30ft above the water – on my first launch, my mind just tilted backwards. Thinking back to those night deck landings still gives me a tingle.

Do you get to fly much outside of work?

Yes, I'm lucky enough to be joint owner of a Glasair, based at Yeovilton. I enjoy taking it for a spin around the countryside, flying around the mountains in Wales or dropping into GA airfields for lunch.

What's your most valuable career advice?

'MOMSOBGYTAST'. It stands for: 'Muck or mud, sh*t or blood, grit your teeth and stay there'. I first heard this 'encouragement' from my QFI during formation training in jets in Australia, and still say it to myself in formation.

Want to learn more about Navy Wings? Visit <u>here</u>.

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The aircraft you're flying...

y sporty Van's Aircraft RV-4 is an ideal commuter for corporate flying assignments - but when I get to the bigger aeroplanes I've got to remember to fly differently.

Passengers on corporate jets don't always appreciate crisp handling and maximum performance the way sport

pilots do. Before a recent take-off in a moderately loaded Cessna Citation, for example, I briefed our passengers to expect a sudden burst of initial acceleration. Due to a relatively short runway, I planned to hold the brakes, run the engines up to full power, then release them all at once and gain flying speed as quickly as possible.

If, for some reason, we had to abort the take-off, the technique would provide as much runway surface remaining as possible to bring the aircraft to a stop. Such 'static' take-offs are standard for short runways, but they feel much different to passengers than 'rolling' take-offs on long runways.

The passengers understood – they seemed to look forward to the energetic departure - and the Citation didn't disappoint. The departure airport was just a few feet above sea

level, and a brisk winter day with dense air meant the jet leapt forward like a sprinter out of the blocks and reached its 100+ knot rotation speed near midfield on the 3,500ft strip. Once airborne, I retracted the landing gear and flaps, while pitching the nose about 17° above the horizon.

I engaged the autopilot and programmed it to maintain 200kt during our initial climb to 7,000ft, and we clawed our way skyward at about 4,000fpm. It was an aggressive climb rate and angle, and it would get the aircraft out of the low-level bumps and into smooth air quickly.

However, my fellow pilot, a corporate aircraft veteran with decades of experience, wasn't amused.

"Fly the table," he said. "Why don't you lower the nose to no more than 10° so that you don't send our passengers floating at zero Gs when we level off?"

He had a point, and I took it to heart. This wasn't my personal aeroplane, so I should fly with a tad less exuberance. The static take-off was the right thing to do, along with setting passenger expectations. But there was no need for a steep climb. I adjusted the autopilot that directed the aircraft to fly at a faster airspeed, and the pitch attitude came down to 10° and stayed there for the remainder of our climb to the flight levels.

Lowering the pitch attitude made sense. But what did the other pilot mean when he told me to 'fly the table'? It was a term that I'd never heard before.

"Think of the table in the cabin," the more experienced flier

said. "Fly in such a way that items placed on the table won't slide off during the trip and you're 'flying table'. Think in those terms and it's easy to be smooth."

'Flying the table' is the opposite of the crisp, hyper-precise style that aerobatic pilots are taught to fly. When manoeuvring in my own aircraft, I seek out maximum performance. When climbing, I'm as close as I can get to best rate. When flying rolling aerobatic manoeuvres, I use full aileron deflection. When landing, I use full up elevator. It's an all-or-nothing affair. Jets require a different discipline. It's extremely rare to bank more than 30° at any time. At high altitude, the maximum rate is 15°. Pilots strive to begin and end climbs with subtlety, and roll in and out of turns slowly.

One of my corporate mentors keeps the yaw damper on, even when the rest of the automation is off, until the aeroplane is less than one mile from the runway. The yaw damper prevents the side-to-side motion from rudder inputs that

"It wasn't my aircraft, so I should fly with a tad less exuberance..."

passengers can find disconcerting – but tailwheel pilots like me use for fine-tuning alignment with the runway centreline.

In other areas, corporate pilots commonly push their aircraft as far as they're legally allowed. Citations, for example, typically fly at or near their service ceilings at 41,000 to 45,000ft. Doing so keeps them out of the way of faster airliners, lowers fuel consumption, and increases range. When they descend, they typically fly as fast as their aeroplanes allow to 10,000ft, and then they go as fast as they're legally allowed (250 kias). Few sport or aerobatic pilots spend so much time at or near an aeroplane's redline, or its service ceiling.

Although the flight disciplines themselves are vastly different, the satisfaction that comes from a well-flown corporate trip is much the same as the joy that follows a well-flown aerobatic sequence. In each case, the pilot has a well-defined goal, and accomplishing it requires performing a series of specific and sometimes demanding tasks in a particular order while avoiding errors. Sometimes, accomplishing the tasks seems quite natural and easy. Other times it's an endless problem-solving exercise full of odd and unwelcome surprises. But the rewards for a job well done are there on every flight. You just have to remember what aircraft you're flying.

RV-4 pilot, ATP/CFII, specialising in tailwheel and aerobatic instruction in the USA dave.hirschman@flyer.co.uk







A flyable oasis

he magazine's title is nothing if not a clue to its likely contents. However, the fact is, I haven't done much of it lately, not even my ritual of 25 December, which had become a once a year must-do for almost as long as I've had a licence. While large numbers of my fellow countrymen were occupied with grandchildren, aged relations or warring relatives - and their womenfolk were engaged creating

to invade my space. I've always felt a wonderful sense of the past while airborne in a vintage aeroplane – the cabin is much as it was when the aeroplane was made seven decades before, and the freedom of the sky separates me from the less enticing reminders of our modern life. All of that is thrown into yet sharper relief by the date of 25 December...

industrial quantities of foodstuff - I could be aloft with nobody

I even discovered that there was either a bylaw, or if not

that, a concession, dating back to in the Heathrow zone to put their wheels down on that runway on 25 December, without charge, need for handling or anything

else – such as a visit from the police. Don't know whether that's still the case but probably not, especially since the date now seems to be filled with holidaymakers seeking escape from the English winter. Back then, it was simple proof that the country's busiest airport had little else to do on that day.

There was also a sense that the rules didn't apply for a day. We're told never to chat over the ether but I've had many pleasant ones with Humberside controllers – at least until they stopped opening on 25 December – and with London Information which remains open 24, seven and 365. Or they probably still are, but I didn't find out. That particular day had even dawned bright and clear in my parts, a single flyable oasis in so many relentlessly wet and windy weeks, but the previously biblical amounts of water had rendered the apron in front of my hangar very soggy indeed. Just walking across it left little puddles in each footprint. That said, it was probably still doable, with care. The muddy grooves left by my wheels would surely disappear beneath the clag which comes in January and February.

But... there was also the wind. Bright and clear, yes, but a sharp north westerly was cutting across 04/22. There's a deep ditch on the southern side of the strip – which ensures the most important bit stays drained - but offers a stern and watery punishment should you depart from the green.

Messenger is happy to handle most things, but crosswinds

can occasionally reveal an unpleasant temper, especially on take-off.

I paced up and down the strip, decided that it really was still fine, cleaned the aeroplane again, checked the fuel and oil (again), dug my heels into the apron's grass to see where the sogginess ended, before, reluctantly, I decided that it was probably better to add this year to the handful of no-flies. A few glasses of the finest hooch would convince myself that it is only one day, and there would be plenty more... not dissimilar to forgetting the birthday of that 'special person' in your life...

Nearly a month went by before another opportunity arose. State of the apron, wind at the strip, which either aligned or wasn't a gale blowing across, and a space in my diary. All had to synchronise, the first two presenting the greatest variables. I then discovered that the battery in my home-made aircraft tug (built from a supermarket trolley) was flat... Messenger is large by small aircraft standards, and the propeller is too high to pull and the trailing edge of the wing too low to push, so I

the Golden Age, which allowed any pilot whose aircraft was based "I've always felt a wonderful sense of the past flying in a vintage aeroplane"

can't get it across soft ground on my own. With two of you, one on each wingtip, it's easy. I found the yoke which I made years ago for my Gemini, which consists of a wooden bar with a piece of rope at each end, which I tie round each of the Messenger's stalky legs. I can just about haul it off the hard of the hangar and far enough onto the grass, then chock each wheel in turn and swivel the aeroplane a wingtip at a time until I'm clear of the doors.

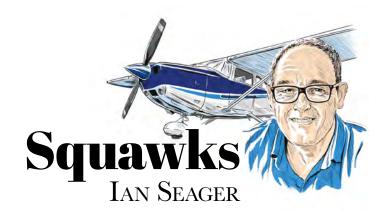
Checks are the same as any other, water in the fuel, oil level, airframe security, control freedom, tyres... then the uniquely upside-down British ritual of checking magneto switches before pulling the propeller through four compressions to check for oil in the Blackburn's bores which might lock the engine. Flood the carburettor, catch the stream of fuel to save the grass, and don't leave it too long before cranking or it will have all gone. Back in the 1950s this was the norm for British flyers and a Miles Messenger was considered utility, a thing to be dried out or dusted off and ragged about when there was nothing else, much like an old Cherokee 140.

I wouldn't have it any other way, and by the time I finally have the wind beneath Messenger's wings it always feels part of an event... 7

Working vintage aircraft and cars make Mark particularly happy mark.hales@seager.aero







Fewer words, more results...

he CAA recently issued a report it called Ending 2021 with clear objectives. It gave some examples of what it's done, what it's doing and what it's thinking. The urge to have a bit of fun proved too hard to resist, and during a recent Livestream (Thursdays, 1930 on FLYER's YouTube Channel) I put an end-of-year-school-report slant on the whole thing, and ended up awarding them an overall grade of E+ for its efforts. I thought that was generous, but it's a serious subject, and maybe I was a bit harsh. Time for another look...

The report kicks off with talk of significant progress during Q4 of 2021 on some tactical projects. Having spent many years (with the help of other National Aviation Authorities and EASA) making aircraft maintenance an overly complex opaque mess, the CAA is now writing what it's calling the Air Worthiness Skyway Code. I think the guide will be about aircraft airworthiness rather than the worthiness of the air for us to fly in. Hopefully we'll find out when the guide is published sometime in 2022. If it is anywhere near as good as the Skyway Code, I'll be the first to congratulate the GA Department on its achievement. Imagine a world where engineers, owners, operators and pilots understand maintenance regulation.

There's mention of the Carbon Monoxide Detection trial (CODE), which will survey a number of volunteers on a monthly basis, reporting findings quarterly. Then there's a weakly worded statement on how we 'might' enable greater delegation to the BGA, how we are 'examining the possibilities' around unleaded fuel, and upbeat talk about 'several lines off work to support Historic Aircraft along with our colleagues at the Department for Transport', which I am cynically taking to mean, we're doing stuff to keep Aviation Minister Robert Courts happy, because he's an historic aviation fan. Lastly, on the tactical front at least, the CAA is looking at airfield innovation, although I assume that's nothing as innovative as having approaches to airfields outside of controlled airspace...

After the tactical comes the strategic. First up is the much needed simplification of licensing. I see from elsewhere that this project is currently in the 'Discovery' phase. Let me help you out there - you'll discover that it's a friggin' mess and that only six people in the country understand it completely. Sadly none of them work for the CAA. I believe the resulting consultation on the changes is due in April. Let's hope it is significantly better thought through than the consultation on cost sharing, which I think we all know was not its best work.

Then there's the rationalisation of maintenance organisations. This is apparently in the 'Pre Discovery' phase, which I guess puts it in the same boat as perpetual motion and time travel. Wrapping up the strategic projects is a plan to review Pilot Medical Declarations. Really? When they were introduced PMDs were brilliant, simple and efficient. A really progressive move supported by an easy-to-use declaration process. Since then there's been change, confusion and a glancing blow with the masterpiece that isn't CELLMA. May I offer something for what I presume is the 'Pre-Pre-Discovery' phase? Please don't f*&k it up.

There was quite a bit of back slapping and self-admiration around things like new Safety Sense Leaflets (they're very good). Last year's Virtual Voyage (some good content spoiled by too much meaningless management speak and some key questions not so deftly side-stepped). Astral Aviation Consulting's safety promotion work (a bit of a shaky start, signs of getting better), and finally Flying Heritage, a 16-page mag published by the CAA. Is it too cynical to remark on the number of senior CAA managers featured in something covering the Aviation Minister's favourite subject? There's a welcome from GA & RPAS Unit head Sophie O'Sullivan, a spread with pictures of three aeroplanes but four different shots of Robert Courts, and a promo piece on STEM opportunities

"I worry we're flagging in a sea of obfuscatory corporate speak"

by CAA CEO Richard Moriarty! Hmmm.

It's easy for me to throw stones from the sidelines, but I worry that we're languishing in a sea of obfuscatory corporate speak. Doomed to tread water while the regulatory tide rises. Churning out inane sentences about 'enabling stakeholder engagement while reviewing considerable rationalisation opportunities' sounds w*nk to you and me, but what if some people think that's acceptable output for a days work? I hope I'm wrong, but it's as if there's a culture of fear, a worry about sticking your neck out and doing something a bit ambitious.

Progress needs strong leadership from on high (and I mean higher than the GA & RPAS Unit). Where's the vision, the big ideas, the 'tell it like it is plain language'? The report kicks off with: The CAA's General Aviation Unit continues to make considerable progress in its aim to radically improve the regulation of General Aviation in the UK'. Sorry, but the last radical things I remember were SSDRs and PMDs. In short, I'm sticking with my E+ grading, along with that well-worn phrase, 'Must try harder'...

Publisher, pre C-19 often found flying something new and interesting ics@seager.aero





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Safety matters

Flight Design has just achieved EASA type certification for its all-new two-seat aircraft, the F2, complete with a host of safety features...

WORDS & PHOTOGRAPHY JEAN MARIE URLACHER

here's a new CS-23 certified aircraft in the sky! Flight
Design is continuing its comeback with the first born of a new range of aircraft: the F2.

It's totally different from the existing, and very popular, microlight and Light Sport
Aircraft CT types in both piloting and design, and should be of interest to flying schools and clubs.

We flew the new F2 from Muret Airfield (LFBR), near Toulouse in the south-west of France where the French Flight Design agent, Christophe Briand, is based. The F2 was only in France for a few days, as part of a pan-Europe tour having received EASA CS-23 type certification on 8 December 2021. Ernst Steger, the factory pilot, had just flown it from Innsbruck, Austria, non-stop, in 5hr 37min flight time, with an average fuel consumption of 13.5 litres per hour and an average speed of 110kt.

"We still had 55 litres left in the tanks when we landed, enough to last another four hours in the air," said Ernst.

Flight Design has retained the high-wing and large door allowing easy access to the cockpit, as on the CTLS, the current version of the CT. The unshrouded wing and the seat at buttock level make manoeuvring in and out much easier and only

requires you to lift your leg to pass the control stick. However, the similarities end there. The seat is much straighter than on the CT. The seat is adjustable in height and inclination. The rudder pedals are fixed.

The wing is one-piece with two different profiles. The last third of the wing has a forward leading edge and a smaller incidence, two fin ribs and vortex generators to stream air over the ailerons, an aerodynamic design which, as we shall see in flight, to protect the aircraft from any asymmetric stall.

Each wing, finished with a graceful winglet, houses a tank that brings the total fuel capacity to 135 litres. These two tanks drain into a small 5 litre header tank located behind the baggage compartment bulkhead. The small tank prevents the engine from stalling when turning with little fuel in the wings. An electric pump delivers the fuel to the engine. Three alternators, two batteries and two pumps provide the necessary redundancy for this electrically dependent engine.

The nose of the aircraft, more tapered than the CT, houses a 100hp Rotax 912iS. At the other end of the aircraft, the two-part elevator is interspersed with a 'beaver tail', whose aerodynamic effect is to provide more longitudinal stability. The tailplane fin is rather small, but 'sufficiently effective in crosswinds', according to Ernst Steger, who regularly flies in difficult wind conditions at Innsbruck. The





Above F2 is powered by a Rotax 912iS, with a 141hp Rotax 915iS version on the way Opposite Wrap over windscreen improves view above during turns Below Low sill and no struts make getting in

and out easy Left Plenty of space behind the seats

blade for the main gear and a polymer shock absorber for the nose gear. The nosewheel is castered, and gives precise and direct taxying. The F2 is equipped with an airframe parachute as Once on board, three elements will surprise you.

fixed tricycle gear consists of a composite single

First, the generous shoulder room (1.29m) – you feel as if you are sitting in a car, which is a feature that flight instructors will appreciate. Second, the spacious cabin volume (800 litres / 40kg) allows you to carry things such as foldable bikes - and plenty of luggage.

Finally, the standard equipment of the instrument panel is well arranged and complete: two Garmin G3X touch, a spare Garmin G5, radio GTR 225 A, transponder Garmin GTX 335 (mode S/ADSB-Out), intercom GMA 245 Bluetooth, and autopilot GMC 507 (ESP-X + Level system). And although that's plenty to have when going on a trip, it's a pity there is no space for an iPad mini. The pitot is heated and also acts as an AOA (Angle of Attack).

The fuel management system is called a 'No touch fuel system', meaning it switches the fuel selector automatically every five minutes, pumping alternately in the left and right wings to avoid any imbalance. However, the pilot can also select the right or left tank manually. The centre console contains the emergency parachute handle, the throttle and the parking brake. A special feature is the standard Matco brake system, coupled to the throttle. When the throttle is moved back past the idle position, the brake system engages symmetrically on the main gear. This takes some





"The F2 is manoeuvrable enough not to be called placid... Let's say the roll, yaw and pitch rates are comparable to a Cessna"

getting used to. The flaps (three notches) and trim (on the stick) are electric.

Like a Cessna

Starting is simple and the annunciators for the two batteries and alternators light up in order. The bumpy grass taxiway of Muret is a good test of the suspension of the F2. The ride is precise and the visibility to the front is good, although you need to get used to maintaining the middle of the line, because the tall panel induces a natural tendency to drive on the left.

Flap 1 take-off, rotation 55kt, climb to Vx 60kt or 70kt for Vy, easy to remember values.

Airmasters –

The UK agent for Flight Design is Airmasters based at Sulby, Northants. The company was started by Gary Masters in 2007 after working with nearby Flylight Airsports on the introduction of the then new Skyranger.

In addition to working with Flight Design, with many of the CT range passing through the workshops, Airmasters is also an Official Rotax Support Centre. Gary is also a Senior BMAA Inspector, LAA Inspector and holds a CAA A3-7 Authorisation for many CAA permit Aircraft types.

So he is well qualified to look after the introduction of the F2 to the UK and Airmasters has already taken the first order – not,

as expected, from a flying school but a private individual.

Gary says that Airmasters will be bringing in the CS-23 certified version at first, while waiting for the CAA to complete its review of the new

Section S airworthiness requirements to see whether the F2 could also be sold as a 600kg microlight.

He expects the first UK F2 to arrive in the third quarter of 2022 but, seeing as the aircraft is made in Ukraine, that does depend on the situation there.

In the meantime, <u>Airmasters</u> waiting for approval from the CAA for the CTLS as a

 $\,$ 600kg microlight. It's already approved as an LSA but the CAA has to OK the first one in the new microlight category.

"Once that's complete, it'll be handed over to the BMAA," said Gary.

The F2's flight manual says a take-off distance of 354 metres to clear 50ft, which is good for many strips. The three-blade Flash 3 Duc propeller pulls hard and at Vx we have a good 1,000ft/min climb rate, although that does limit the forward visibility, again because of the tall panel.

The first sensation when handling the controls is one of feeling immediately at home, in the sense that everything falls to hand – just like a Cessna, from 152 to 206, no surprises. That's a compliment, by the way!

There is good forward visibility once level, and the side and rear visibility are exceptional, thanks to the large side door and the rear window, allowing you to keep the runway in sight at the end of the downwind leg. As with all high-wing aircraft, visibility is zero in turns, but on the F2 the windscreen rises slightly above the pilot's head to minimise the blind spot.

As with a Cessna, the controls are consistent in all three axes. The F2 is manoeuvrable enough not to be called placid. Let's just say that the roll, yaw and pitch rates are comparable to the Cessna. To help the aircraft enter a turn, a light touch on the turn side foot before the stick helps it enter the curve.

Stall tests can be a matter of debate. In all three flap configurations (stall at 40kt / 48kt / 53kt smooth), pulling the stick back to your belly, the aircraft does not stall at all. Instead, it parachutes around 550ft/min.

There are two reasons: the ESP-X system of the Garmin autopilot, which measures angle of attack, speed and altitude in relation to the terrain, acts as a 'stick pusher' and pushes the stick forward so that the aircraft regains speed by giving it a command to dive. In this case, the autopilot engages and a press on the red button of the AP disconnects it. The same applies to roll. This system does not work, of course, close to the ground, thanks to Garmin's GPS altitude function.

This device has the advantage of protecting the pilot from any stall, but also has two disadvantages. A flight school instructor would not be able to demonstrate a stall, and there's a risk the pilot doesn't recognise the rapid rate of descent – however,





Above Garmin G3X flight-deck Above Garmin G3X flight-deck with 3D views on the display Right Fixed portion of the tailplane - the so-called 'beaver tail' - helps pitch stability Below Clean finish to airframe Left External power socket just one of many features on F2. Useful when ground training on the G3X panel with the engine off









Above No struts!

Below Centre tunnel
adds rigidity to cabin
Left Long narrow wings
('high aspect') are
good for stability and
endurance. Winglets
reduce drag and
improve wing
performance further



the stall alarm will be going off. In the event of an off-field landing, it is recommended that the ESP-X breaker be disconnected to maintain full control authority. Progress and the modern tendency to over-protect the pilot in the name of safety (as in cars) has its advantages and disadvantages, something airline pilots know all about.

The cruise at 5,000rpm (75% power) gives a True Air Speed (TAS) of 108kt at 7,500ft for 15 litres per hour and 115kt at 2,500rpm. The F2 does not shine for its top speed, but compensates with its endurance of nearly nine hours at a 65% power setting. This is suitable for a flight school because the aircraft can operate for a day of instruction without necessarily refuelling. With an empty weight of 414kg and a maximum weight of 650kg, the F2 offers a load of 138kg when fully fuelled. Of course, you can always trade less fuel for a heavier crew.

Recent history

The F2 really does behave like an aeroplane and not like a microlight, and is a big change from the CT.

Looking back at Flight Design's recent history, in 2016 was put into 'safeguard' with a pile of debt, and the company has since been bought by a holding company LiftAir, owned by a German businessman, Sven Lindig, based in Eisenach, Germany. Flight Design's finances are healthy today and the factory has been producing 60 machines a year since 2017.

More than 2,000 CTs are flying worldwide and it's a well-liked aircraft in both microlight and Light Sport Aircraft configurations. In the UK, Gary Master's company, Airmasters, has taken over from Oliver Achurch as the UK agent, and is based at Airfield Farm, Sulby, Northants (see sidebar).

Flight Design's goal is to develop a new range of aircraft: F2, F4, F6, i.e. two-, four- and six-seaters. The F4 (four-seater) currently under development, will be powered by the soon-to-be rolled out 160hp Rotax 916 with a cruise speed of 150kt.











Above Spirited handling is kept in check by Garmin ESP

The factory is still in Kershon, Ukraine, and the delivery centre for certified aircraft is in Sumperk, Czech Republic.

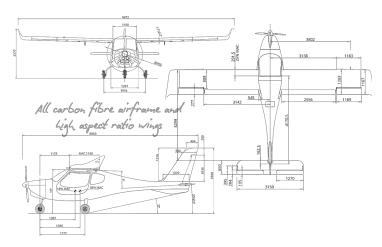
Flight Design says the F2 is ideally suited for use in flying clubs for school, and leisure travel. Two versions will be offered, VFR and IFR. The IFR version, yet to be certified, will be a little heavier. Flight Design is also talking about an F2 fitted with the more powerful Rotax 915iS engine, which would improve performance further at the expense of fuel burn – and cost. The 915iS is not an inexpensive engine. Whether flight schools and individuals would see the benefit of a two-seater with that extra power is debatable, and the heavier engine would eat into the payload.

The obvious advantages of the F2 are its long range, its large cabin volume, its airframe that is 50% stronger than the CTLS in case of a crash, its standard airbags, its modern and complete avionics (autopilot included in the standard versions) and it's easy handling.

However, price-wise, at €238,880, the F2 is at the high-end of the two-seater market and it's pretty competitive market these days. It's up against a host of rivals including the all-metal Sonaca 200, new carbon fibre French Elixir, a choice of two Tecnams, the PS-28 Cruiser, Pipistrel SW121 Virus, Bristell B23, the long running Diamond DA20 and even the three-seat Piper Pilot 100 based on the even longer running Cherokee... let alone competition from more expensive but more flexible four-seaters. Pilots and flight schools alike have never had it so good. *◄*

Flight Design F2

Two-seat trainer/tourer



Performance

Max speed 126kt Cruise speed 114kt Stall speed (flaps) 48kt, (clean) 53kt Take-off distance 294m

Take-off distance 294m Landing distance 330m Rate of climb 840ft/min Range 1,080nm

Weights & Loading

Seats Two Max take-off 650kg Empty 380kg Payload 270kg Fuel capacity 130 litres

Dimensions

Wingspan 9.872m Wing area 11.1sqm Length 6.86m Height 2.34m Cabin width 1.29m

Spec

Airframe Carbon fibre
Engine Rotax 912iS
Max power 100hp
Prop Duc Flash 3, three-blade
Avionics Garmin G3X Touch x 2,
Garmin GTR225 radio, Garmin GTX
335 transponder

Manufacturer

Flight Design GmbH Am Flugplatz 3 99820 Hoerselberg-Hainich, Germany W: flightdesign.com

Contact

Airmasters Airfield Farm, Sulby NN6 6EZ W:www.airmasters.co.uk/

Price

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My First Solo Claire Lomas

No time to get nervous on the first go... Claire Lomas' second solo was way more nerve-wracking than her first. Interview by **Yayeri van Baarsen**



Solo stats

Motivational speaker Claire Lomas MBE uses her flying to raise funds for the Nicholls Spinal Injury Foundation

When 18 April 2021 Where Pegasus Quik Flexwing Microlight Aircraft Sywell Aerodrome Hours at solo Approx. 55 Hours now Approx. 90



How did you get into aviation?

After my horse riding accident in 2007, I had a go at flying with Aerobility, but it was too soon. I hadn't really accepted the things I couldn't do anymore. Ten years later, when I had my second daughter, the doctor who delivered her flew a flexwing microlight. We started talking, he showed me flying pictures and said: "Let's both get our licence."

Why a flexwing microlight?

The outdoors has always appealed to me. In a flexwing microlight you're exposed to the elements, which feels like an adventure. Also, having the wind blowing across your face when flying really gives you a sense of speed. It does get cold in winter though...

How did you choose the flight school?

My dad, who flies a fixed-wing aircraft, suggested Sywell, so I contacted Wanafly Airsports. They replied immediately, were really helpful and have been amazing throughout my training. Simon James, my flying instructor, has become a friend and we've taken on challenges like the Great South Run together. Dave Lord, who owns the flying school, sorted out the adaptations to the aircraft.

How is the aircraft modified to suit your abilities?

I'm paralysed from the chest down, but my arms are strong, so I use them to fly

the microlight. There's a hand-throttle just above the bar and steering and braking is done by hand as well. With all hand-controls, sometimes I feel like I need a third hand! Luckily, I'm good at multitasking.

How did your flight training go?

My training came at a good time. The pandemic put my job as a motivational speaker on hold, so learning to fly gave me something to get my teeth into. I had time to focus on my exams and never felt eager to rush my training. I found learning to fly challenging. Especially when coming into land. The first time you're too high, the next time you're too low... conditions always change, so it's never the same approach. I love a challenge though!

Did you expect your first solo?

No, although I knew I was getting close, I didn't expect it. That was a good thing, as it meant I had no time to get nervous when my instructor got out. My second solo was actually more nerve-wracking, purely because I was expecting it. My first flight alone was such a buzz! I did wonder if I was ready, but you just have to trust your instructor on this. I stayed focused throughout the flight, making sure I did everything exactly as I'd been taught – it isn't over until you've passed the finish line. Afterwards, I couldn't wait to tell my husband and daughters, who had handmade cards waiting for me at home.

"Having a disability, or being a woman, doesn't hold you back"

What are your future flying plans?

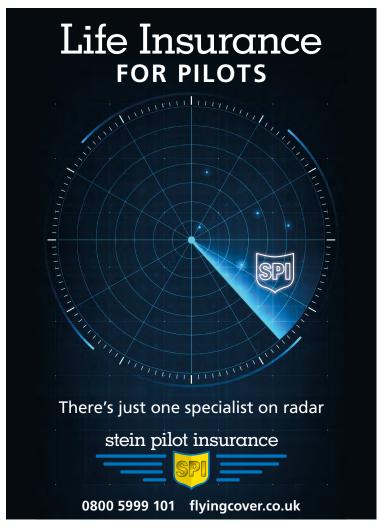
I'm currently on an NPPL restriction and still need some more solo hours and my navigation test. At the moment, just flying from Sywell is exciting enough. That said, I can't wait to have a microlight at home and fly it from our farm strip! I'm certainly planning to use my flying for further fundraising. Selling patches on my flying suit, I've already raised £10,400 for charity. All my challenges together have raised £825,000 - it's my goal to raise f,1,000,000. I like using the opportunities I get to help others. Currently, I'm looking into giving talks at schools, showing kids that having a disability, or being a woman, doesn't hold you back and that there are no limitations. Also, I've just finished my second book, The Bigger Picture, which will be out on International Women's Day (8 March 2022). It includes quite a few chapters on flying!

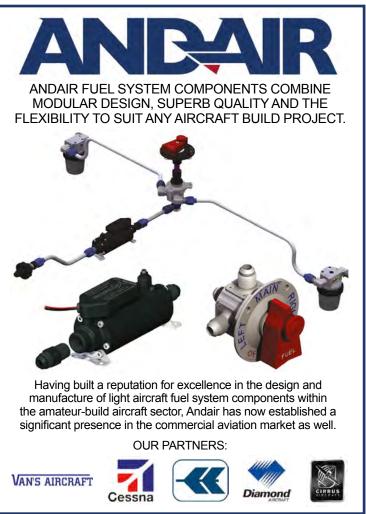
What does flying mean to you?

Flying makes me feel able. After the accident, my whole life turned upside down. It felt like it was the end. However, many doors have opened since, and learning to fly has given me a big sense of freedom, satisfaction, and achievement. Having gone through a period of thinking 'I'm not able' and 'I'll never get a buzz out of anything again', makes you appreciate things like flying even more.

Click <u>here</u> to watch Claire on the FLYER Livestream.

For more information about Claire's flying challenges and her fund-raising, click *here*.







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Climbing the ratings

An uncomfortable flight from France persuaded **Robbie Garrett** to upgrade from a restricted Instrument

Rating to a full-blown Competency-Based IR

y goal has always been to become a fully fledged airline pilot. Unfortunately, I don't have £120k, plus many obstacles have got in the way in the last few years. With the impact of Covid-19, this dream now seems even

harder to achieve.

In 2015, some four years after I got my Private Pilot Licence, I added the IMC Rating. It is a very useful alternative to the full Instrument Rating (IR). However, it is not normally recognised outside the UK, but a lot simpler to obtain than the 'full' IR.

The course consists of a minimum of 15 hours, all dual instruction, with a written examination and a skill test.

The privileges of the IMC Rating allow you to fly a UK-registered aircraft in UK airspace Classes D, E, F, and G, in IMC, out of sight of the surface. You may also carry out Instrument Approach Procedures to published Decision Height or Minimum Descent Height, and to undertake missed approach procedures, with a minimum take-off and landing visibility of 1,800m. The rating is valid for a period of 25 months, after which it is renewed or revalidated by flight test.

Ever since a challenging flight back from France in 2018, I've really wanted to get the full IR. Not only would my flight back have taken place the day before, thus saving me a further night stranded in France, but it would have meant a much more pleasant experience for everyone on board.

The IR allows private pilots to fly in the cloud, in

any class of airspace, including airways, and enables you to fly a Category I ILS descent to a decision height of 200ft and RVR of 550m (two crew) or 800m (single pilot). Because of my history of instrument flying, I could take the competency-based modular CBIR route, which is designed to get me up to the standard required to pass the initial IR flight test.

I had to undertake some groundschool at an approved ATO (Approved Training Organisation), and pass theoretical knowledge exams in Air Law, Aircraft General Knowledge – Instrumentation, Flight Planning and Monitoring, Human Performance, Meteorology, Radio Navigation & Communications. After many recommendations, I decided to complete the ATO theory with Caledonian Advanced Pilot Training (CAPT), which would take place at White Waltham or Prestwick during summer in 2019.

The total cost for the course including the ground school and electronic materials cost £595. In order to complete the examinations with the Civil Aviation Authority, you must complete the required time in the classroom, the progress tests and then the mock exams, which are suitably provided by CAPT.

The training materials provided are PDF books, which requires many hundreds of hours of detailed reading. With a full-time job, it's not an easy feat. Sadly, as there were no suitable dates down in the south of the UK, and I wanted to complete the classroom-based phase before moving to a new job in the autumn, I went ahead and booked the face-to-face tuition up in Scotland.

I booked a coach with National Express costing a total of £32.20, this was versus a total of £200 for a



flight with easyJet or a direct train journey. Additionally I needed one night's stay in a hotel, this cost a further £100 in central Glasgow.

I arrived back in London with good news – I would be starting a new job. However, training for the new job meant I couldn't find the time to take the exams at Gatwick. This delayed my progress by some five months and, at this point, I was becoming very frustrated. I started the examinations in late February 2020, first passing Human Performance, quickly followed by Air Law. Surprisingly I had a very difficult exam with Aircraft General Knowledge and failed, but I have to blame my lack of preparation for that.

However, to no surprise, I passed IFR Communications and re-took Instrumentation a week Above Panel of the Diamond DA40 with the original 'steam' gauge instruments Below Real IMC! Learning to trust what the instruments are saying is key



"Little did any of us know what was brewing before our very eyes around the world..."

later and gained a pass. I spoke to the examination team and based on its comments, the rumours on Twitter, and the front page of most newspapers I didn't make any more exam bookings. Little did any of us know what was brewing before our very eyes around the world...

I originally hoped that in summer 2020 I would complete the practical elements and the IR skills test. Adding to the delays of lockdowns and the closure of examination centres, the aircraft I was going to use was having a complete avionics overhaul in Belgium. With the aircraft's ARC expiring and Covid ravaging the world, things didn't look like they'd be progressing any time soon.

Once exams restarted, I got back to studying. Unfortunately, I misunderstood how demanding the final exams were — and for some reason I just couldn't pass them. It was very embarrassing having stormed through all the exams earlier on in 2020 without any major hiccup, bar one exam. Being extremely keen, I rebooked the exams later in August and yet again missed out on a Pass. I was becoming extremely anxious about the whole thing, which didn't help.

I turned to the training school before my final attempts. They provided me with someone who could provide additional tuition. This additional tuition set me back a fair amount in costs but provided me with the knowledge to get some of the highest pass marks of all the exams I had taken.

Then came Tier 4 restrictions for England, and the rest is history. Covid really prolonged an already deferred start to my IR and the whole situation made me feel as if I'd never get there. Lockdown 3 came along and my nan, who was in hospital, sadly got Covid and passed away. It really was one thing after another. I knew, based on the first national lockdown, that it wouldn't be until at least April that I would be flying again.

The aircraft I would use for my training was the aircraft that I currently have a non-equity share in, which returned from Belgium in summer 2020 with a significant upgrade to its avionics suite. The aircraft



now sported an impressive IFR spec with twin Garmin GTN 650 Xi and Aspen EFX 2000 PRO Max units. During the quieter winter months of reduced working schedule and lockdowns, I downloaded the Garmin GTN Xi Trainer. This explores the features, options, and fundamental operational aspects of the Garmin avionics. When used with the GTN Xi Series Pilot's Guide, it's an effective way to improve avionics familiarity and proficiency.

Additionally, I spent many hours reading the Aspen manuals. EFIS requires training with an instructor and, at first, is very daunting before you actually get used to the systems.

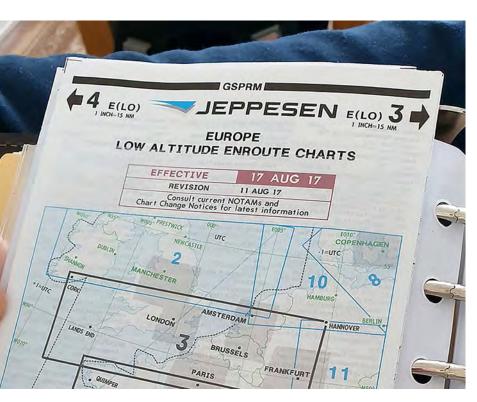
It was now April 2021 and my official IR training kicked off with VOR tracking, a key area I struggled with in the examinations. The first flight was a fairly short sortie via BRAIN tracking LAM VOR and then towards CLN, which are the first three



 $\textbf{Top} \ \text{Panel upgraded with Aspen primary and multi-function displays, centre, and Garmin \ GTN \ 650 \ Xi \ navcomms$

Above The ground's down there somewhere... an early sortie with new avionics **Below** IR training kicked off with VOR tracking, which Robbie says is not his strongest point







Top Flight training was from Stapleford and across the south-east **Above** It's a good look... under the hood

 $\textbf{Below} \ \mathsf{Typical} \ \mathsf{English} \ \mathsf{summer} \ \mathsf{weather}, \ \mathsf{not} \ \mathsf{ideal} \ \mathsf{even} \ \mathsf{for} \ \mathsf{IR} \ \mathsf{training}$

waypoints of the routing for the IR training. After fogging my brain and confusing me while my workload was still relatively low, I successfully navigated to and from CLN via BRAIN using the VORs. I was then given vectors away by the IRI (instructor) and told to identify where we were position-wise. This was the basics but with new instrumentation, it wasn't hard to forget how things work. A short 1hr 10min in the air ensued a safe return to Stapleford.

The very next day we went to the nearest NDB station and completed an hour's worth of NDB tracking and holding. We left the NDB to hold various times and I was told to identify what entry we would need to re-enter the hold... it really started to challenge my brain. The weather provided an interesting perspective, with lots of challenging turbulence to add into the mix, and at the low levels we were flying, it wasn't fun, especially as I hadn't flown much IFR at the time.

In April, we flew again — more holding at the local NDB. I had 135kt ground speed on the outbound leg and 90kt on the inbound leg, due to the upper winds being very strong. This was super hard work and it wasn't really ideal training conditions being such a newbie. This was a long flight and didn't just cover instrument basics. It was the dreaded stalls, unusual attitudes, and partial panel training. It's this sort of stuff I don't really like, but I think it trains you to avoid these 'killers' and, in my case, never go near them...

To start, we flew as slow as we could with power off and tried to maintain the altitude to induce a full stall. We went all the way to the buffet and then recovered. The IR training only requires stalls to the first sign of a stall (stall warner), but as you'll see in my YouTube videos, the DA40 stall warner chirps off very early and way before any stall could be entered, let alone a





full stall. The difference with this training was that I was wearing the hood to blank off vision outside, meaning I had to concentrate on the instrument panel. We did a stall in the turn under the hood and then went to a partial panel for the rest of the sortie.

For partial panel exercises in a glass cockpit aircraft like this, the brightness of the panel is turned all the way down to zero, so you cannot see any information on the screens. It's important to remember how to turn this back on – as I discovered in a later lesson.

We climbed up towards the coast and the IRI commented on the perfect amount of right rudder I had for this climb. I could see a little through my peripheral vision and detected that we were in IMC, which I believe was the game-changer for what happened next.

I kept turning left, and despite the IRI asking why I was turning left, I looked down at my instruments and I still thought I was straight and level. Oh my God... it's the leans. I've never experienced anything like it. WOW! It was a good job that I had a qualified professional sitting in the right-hand seat, rather than by myself with a few passengers.

Some more VOR tracking back to Stapleford and after 1hr 45min of rollercoaster fun, we finished... for April.

Ready for an IFR sortie

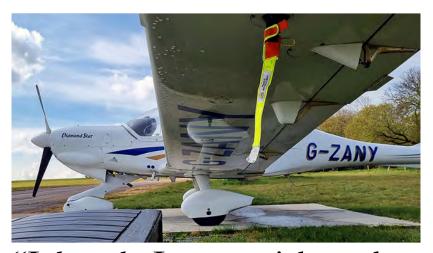
We were now into May and I was hoping to start making some serious progress. However, the weather was unseasonably bad. Upper winds were 45kt across the Southend hold, and forecast to get worse as the day went on, with heavy driving rain within the fronts. Anyone would think it was a Bank Holiday Monday. Oh, it was...

A few days later we had two flights booked, so I was happy that we would be catching up with lost training time. The first was a short flight to recap on stalls and unusual attitudes. The second as another sub-airway routing and tracking the VOR to BRAIN. Once we reached BRAIN I would track CLN VOR and it wasn't auto identifying. This was clearly an issue as I

Above Getting to grips with the new Aspen EFIS. Robbie videos much of his flying for his YouTube channel Below The Diamond DA40 Robbie flies as part of a no-equity aroup

obviously hadn't checked the Notams to see if it was unserviceable or not. I then proceeded with GPS instead of tracking the VOR. It was at this point I went climbing without asking Southend ATC (I was on a traffic service - and this requires you to request the altitude change from ATC). The IRI was quick to remind me and put an abrupt stop to climb.

We requested to route CLN direct GEGMU then SND as per the PLOG. However, tracking towards GEGMU, I was told to route direct SND, cleared through controlled airspace at 3,000ft. I decided to continue to GEGMU. But this was what confused me. We were asked about our intentions, and I assumed we'd follow them. To then get a clearance that was different to the request was what really confused me. But it was an instruction and I should have followed it, or at the very least queried it.



"I thought I was straight and level... it's the leans. I've never experienced anything like it"



As we were en route to SND the IRI queried what hold entry I would fly. I was already getting flustered so it was a perfect time for the IRI to check my knowledge. If only I had done a better job of the pre-flight preparation I would have given a reasonable answer.

We flew our entry and flew back to the NDB to start holding. I think at this point I was getting tired, and I kept forgetting to set the timer when abeam the NDB on the outbound track. This is an important part of the holding procedure as it allows you to stay within the protected area of the hold and gives you a fighting chance of turning to intercept the inbound heading without being too wide or too narrow.

It was now time to fly the ILS. We flew away from the beacon as per the procedure and I quickly dropped to 2,000ft, which is the minimum altitude you should be at until you capture the glide path successfully. This would be an instant fail. The reason? Trim. As with PPL flying, trimming is critical to reduce workload especially in IMC (or mock IMC), and would have been my friend in this situation, especially where I lowered power to ensure I wasn't too fast.

Above The day of the Instrument Rating Test (IRT) arrives... scorchio! Below left Hey! I'm Robbie, Instrument Rated pilot! Below right A post-IR flight with a mate and it's all going to plan Bottom At last, the Instrument Rating

The approach was riddled with errors including being outside of limits and carrying too much speed. I've flown better and I was disappointed in myself. I hadn't flown many ILS approaches over the last few months, so I was fairly rusty. The go-around was poor, I didn't kick the ball in the middle during the climb, which meant with the winds we had, I was drifting away from the runway heading. We flew the missed approach instructions given to us by Director and were re-vectored for another ILS. This again was outside of limits and too fast compared to what I should have flown. Maybe it really was time to call it a day today as I was getting exhausted, so we flew back to LAM and landed at Stapleford after a very busy and difficult day of flying.

More flying followed, gradually improving, including two IFR airways flights with multiple handovers, descents, holds, approaches and weather that included turbulence, low cloud, mist, embedded CBs – a typical English summer! There was even a controller shortage...

ATO assessment

The day of the ATO assessment came around to check that I could achieve test standards in the 10 hours prescribed, with a flight to Lydd. Of course, there was a weather front sitting on the route between ourselves and Lydd. The rainfall looked heavy but not outrageous. We continued our flight towards Lydd and entered very thick IMC, with rain completely reducing visibility to zero. The weather was just sitting on the Downs.

We continued our routing towards intercepting the DME ARC. I completed all my checks and set the



"I got the news I'd dreamed of — I had passed — and released a weight of my shoulders"





aircraft up in a timely but efficient manner. With a 25kt tailwind, we quickly flew the ARC and had a 142kt ground speed readout as we established on the ILS. I had to use far less power than I've ever done before to maintain my 90kt IAS and an increased descent rate towards the decision altitude because of the higher than usual ground speed.

This ILS was as good as the ones I had done almost a month ago and it was well within the prescribed limits. I was happy, and the senior instructor seemed to be as well. We flew the missed approach and then flew back to Stapleford again through the weather we'd just flown through and back via the Southend CTA for a visual approach into Stapleford. He gave me a few pointers, but these were relatively minor. I was on my way to the concentrated ATO phase which would end with the 170A sign-off, saying I was ready for the Instrument Rating Test (IRT).

During the week with the ATO, I was contacted by the course coordinator and we booked the IRT – the only day in the next couple of weeks when the aircraft and I were both free. It only required the weather to play ball, and so far the forecast was looking like a scorcher. So, a morning slot it was - far less bumpy, I hoped. And that'll be $\pounds 826$ for the test, please...

The weather forecast was incredible. I'd done most of my training in IMC, apart from two or three flights, and the forecast was for nil wind and clear skies. You couldn't make it up!

The night before the IRT, I just about managed to get everything done before the time I wanted to sleep. I had booked my approaches as soon as I found out the date of the skill test, simply because getting a slot lately had been difficult.

I checked the Notams, the weather, and did my weight and balance along with the final performance calculations, albeit based on the forecast temperature and wind. I filed the flight plan and placed all the documentation into my flight bag. It was a very early start, and I had to be at the airfield at 0700. Rather frustratingly, I woke at 0430 which was one hour before my scheduled alarm. This was really frustrating ... so I added my final wind calculations for the flight which had been released by the Met Office overnight.

Misty morning for the IRT...

I arrived at a misty Stapleford aerodrome with dew on the ground and a soggy cover on the aircraft. This meant I needed to clean and wipe the canopy down. Luckily I had a spare cloth to wipe it before applying the spray. I did my walk-around checks and checked the fuel.

Everything was going smoothly and I taxied the aircraft over to the flying school ready for the briefing and test. At this point, I was becoming very nervous but once I had been briefed and the plan came together, I was much more relaxed and started to feel more confident. I couldn't help thinking of the financial outlay - this was going to be a £1,200 flight

(test fees plus aircraft usage). I had one shot at it and the next 2hr 30min would decide on either more training or an Instrument Rating for my licence.

Thankfully, despite the weather, the immense humidity and heat, and probably the fatigue from lack of sleep, an airways flight, an NDB hold and entry from a direction I'd never flown before, a procedural ILS after flying for only the second time the complex process from hold to ILS on Runway 05, and a further cross-country to Lydd for the RNP along with many unusual attitudes, stalls and partial panel flying, and a greased landing into Stapleford - I received the news I'd been dreaming about - I had passed!

Not only had I passed, but I also suddenly released a ton of pressure from my shoulders.

The IR was finally something attained – I had started to wonder if it would ever happen. It was a vear later than I had anticipated, but what a journey!

The pressure of the theory exams themselves, the added pressure of the pandemic, and wearing a mask while sweating it out in the CAA exam centre, to the weather conditions on the practical element of the training.

The weather in particular was something I didn't think was possible during the summer months but made the whole experience rewarding (even if I didn't think so at the time!).

Footnote: If you want to follow Robbie's progress in his quest to explore the European Airways, follow his YouTube channel, The Flying VLOG

The stumbling block: cost

The only downside from this experience is the cost of attaining an IR. A total of £11,713.52 was spent on the IR - and that doesn't include Ubers to and from the airfield and coffee, something of which you'll drink plenty of...

While I hope this stumbling block doesn't put people off, of course, it's a significant investment but a worthwhile one that many people, myself included, believed was far from possible.

I completed a huge bulk of the training between April and July 2021, and this was beneficial as it probably meant I'd pass the Instrument Rating test the first

Depending on your abilities, you can probably budget for between £10.000 and £14.000 over the course of 18 months (if you have a full-time job) to get to the required standard and pass the strenuous test at the end.

PRE-ATO Completed		ATO Completed		TOTAL Completed	
#		Completed	#		#
Total Cost	£5,680.78	Total Cost	£3,396.14	Total Cost	£11,713.52
Hours Flown	24hrs 05min	Hours Flown	11 hours 5 min	ATO DIEORY	£595.00
DURS FLOWN Cost	£3,978.50	HOURS FLOWN Cost	£1,545.60	CAA EXAMS	£1,022.00
pproaches Flown	17	Approaches Flown	12	PRE-ATO	£5,680.78
EGMU Cost	£72.00	EGMD Cost	£96.00	ATO	£3,301.14
EGMC Cost	£270.60	EGMC Cost	£172.20	AIRCRAFT	£5,524.10
EGS(Cost	£49.68	EGSC Cost	£24.84	APPROACHES	£685.32
Instructor Fee	£1,310.00	Instructor Rec	£1,462.50	INSTRUCTOR FEE	£2,772.50
Other		Other	£95.00	IR Test Fee	£829.00
				Application Fee	£142.00
				Other	£95.00
				Other Add/Upwal	£48.60

Distress & Diversion

What happens next?

Flt Lt **Jason Bowditch**, Air Traffic Controller with 78 Sqn which runs the Distress & Diversion service, describes what happens when a pilot starts to have engine problems...

aige Turner woke up, looking forward to the surprise sortie she had planned for her husband, Ed. The weather looked good, with clear skies which were due to stay according to the TAF. The plan was to depart from Gloucester Airport and fly down to the Scilly Isles for their anniversary. With a VFR flight plan in place, Paige was confident the day would go without a hitch.

Paige hired a PA28 for the weekend and they got to the airport early to allow time to conduct the preflight checks. All appeared to be in good working order. Both Paige and Ed have PPLs, and both have hundreds of hours of experience in the Cherokee.

Air Traffic Control cleared them for take-off, and they began their journey south-bound avoiding Bristol CTA. Paige and Ed decide to fly anonymously as the visibility is excellent.

After 90 minutes of uninterrupted flying, the aircraft engine starts spluttering and appears to be having issues...

Without further delay or taking unnecessary risks, Paige dials up 121.5MHz and calls a Pan to D&D.

Paige: "London Centre. Pan-Pan, Pan-Pan, Pan-Pan, G-HELP, Pan."

D&D: "G-HELP, Pan Acknowledged, Squawk 7700 (or Squawk Emergency). Pass details when ready."

Flt Lt Jason Bowditch takes up the story. This triggers an alarm in the D&D Ops room and we immediately locate the position of the aircraft. The radar also gives us the last Squawk the aircraft was wearing, in this case, 7000. But if they were working an ATC Unit, D&D could see the last designated Squawk. It gives us an indication as to who to ask first to get the details.

Paige: "London Centre, Pan G-HELP, is a Piper Cherokee, 2 POB, we have a rough running engine. Request diversion to the nearest aerodrome."

D&D: "G-LP, your position indicates 4nm west of

Bodmin. Taking your own terrain clearance, steer for Newquay is 260, 12nm."

The details D&D require are: type (we can usually get from the callsign using Mode S), POB, nature of emergency, endurance, intentions of the pilot.

As the pilot wasn't in RT contact with another ATC Unit and freecalled D&D direct, D&D will retain Operational Control (Emergency Control) as well as Executive Control (Emergency Supervision). We will then give Operational Control to Newquay ATC when G-HELP is handed over to their radar controllers.

The details of the emergency will be passed onto RAF Boulmer's Identification Officer. We'd also pass the details to the Joint Rescue Coordination Centre (JRCC – formerly known as ARCC). This effectively alerts them in the event of the emergency escalating to a Mayday – whereby they are potentially unable to maintain height and are forced to make an emergency crash-landing into a field. They can then scramble a SAR asset from the nearest location and be on the scene expeditiously.

D&D: "G-LP, do you require the latest weather at Newquay?"

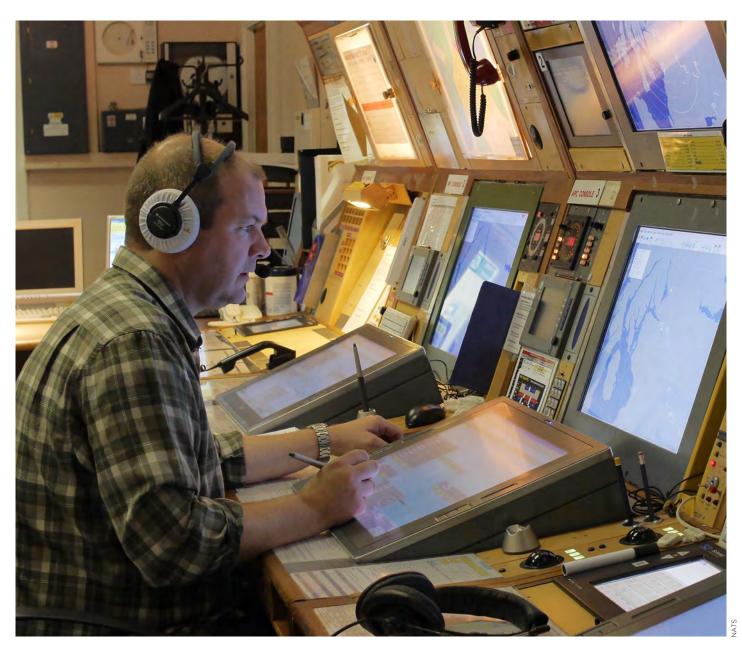
Paige: "Negative, we have received the Newquay's latest ATIS G-LP."

D&D has the latest weather to hand for pilots who require the information.

D&D: "G-LP, what type of approach at Newquay?"

Paige: "Request a visual straight-in approach G-LP."

At this point D&D would prenote the destination aerodrome of the diversion and hand the aircraft safely over to the ATC unit at an appropriate range (usually within 30-40nm), handing over Operational Control in the process. We'd request they inform us when the aircraft is either safely on the ground (or they've handed Operational Control of the emergency onto another ATS provider).



Alternatively...

If Paige made an unexpected descent into a field, we would mark the last observed Lat and Long, the last observed height, and direction of travel. We would then pass the details to the JRCC which would very likely scramble the SAR asset to the estimated location of the crash-landing site. JRCC will coordinate the scramble of its SAR asset as well as help in passing on information to emergency services when required. D&D has a close and excellent working relationship with JRCC which makes processes between the two appear seamless, which is vital with what we're trying to achieve together.

If Paige was already under control from an ATC unit, the details of the emergency would be passed from controller to D&D, and D&D would liaise with JRCC and Boulmer as above.

You'll be pleased to know that in this example, Paige and her husband landed safely at Newquay.

Key take aways...

A few key learning points from the above scenarios to take away:

There are two conditions of emergencies, as defined in the Flight Information Handbook:

"DISTRESS. A condition of being threatened by serious and/or imminent danger and of requiring immediate assistance."

"URGENCY. A condition concerning the safety of an aircraft or other vehicle, or of some person on board or within sight, but does not require immediate assistance.'

If the condition is distress: then the aircrew will transmit Mayday three times followed by the callsign once. If the condition is urgent the aircrew will transmit Pan-Pan three times followed by the callsign

If you are already in communication with an ATC unit, then inform that unit of the details of your emergency. If you are not in communication with anyone, contact D&D directly on 121.5Mhz. Either way, you'll be monitored on radar until the emergency is complete.

Our ultimate aim is to help save lives - actions on emergencies is one of D&D's top priorities.

Hopefully this has given a bit of insight and assurance that D&D is doing all it can from the ground to bring you home safe.

Hope this was useful. See you all next month!

Above Declaring an emergency or pan? D&D can help get you safely on the ground



Safety Accident Analysis

Normally, everything's fine!

We are always checking, aren't we? And when something eludes our scan, our experience always provides the wherewithal to get things back on track, doesn't it? As **Steve Ayres** reports, these accidents suggest that is not always the case!

t is with thanks to our French colleagues at the Bureau d'Enquêtes et d'Analyses for publishing this month's accident reports. Both occurred recently during the take-off phase and both led to loss of the aircraft and nearly to loss of life. Miraculously, everyone survived.

So how was it that pilots with thousands of hours experience between them missed only one tiny action in their pre-take-off checks and that led to the flight ending in catastrophe? Could it be that there is something deficient in the way we all think?

Accident 1

The aircraft, a Cessna U206 Super Skywagon, F-HIDZ, built in 1965, was involved in an accident in 2005 while on the UK register. In 2017, the aircraft was bought by a company in France, who wanted to restore it and replace the piston engine with a turbine.

The accident pilot, who was also the deputy Chief Engineer for the Maintenance Organisation, was in charge of the restoration work and intervened in all phases of the work. As co-director of the company he held a private pilots licence since 1992 and a Cessna SET class qualification since November 2015 with a total of 3,439 flight hours. He also held an associated Part 66 Aircraft Maintenance Technician Licence including categories A and B1 which allowed the re-commissioning of turbine-powered and piston-engined aircraft.

According to the company's Maintenance Organisation Exposition (MOE) document, in the absence of the Chief Engineer, the accident pilot was responsible for the execution of all maintenance work and all other interventions carried out by the technicians. As qualified personnel, he could also intervene in all phases of aircraft maintenance. For 25 years he had also been performing check flights of aircraft coming out of maintenance.

The pilot was performing the first check flight after restoration. Following the pre-flight inspection and an engine run up, the pilot carried out an acceleration-stop along the runway with the flaps retracted, before then lining up for take-off.

After rolling for approximately 200m, at around 54kt with the control yoke slightly oriented to the right, the aircraft began to bank slightly to the left as the aircraft rotated prior to unstick. The pilot countered to the right by turning the control yoke as far as it would go. The aircraft continued to bank (to approx 30° to 40°) and the left wingtip struck the runway.

The aircraft deviated to the left of the runway centreline about one metre above the ground, remaining highly banked and with the wingtip still in contact with the ground. The pilot applied full right rudder up the stop and reduced the power by putting the propeller into 'Beta' mode. The aircraft came to a stop left of Runway 20R and the pilot evacuated the aircraft after having made the switches safe. Subsequent

inspection of the aircraft in the workshop revealed the aileron control cables crossed at the wing bell-cranks.

The accident pilot had just resumed work on F-HIDZ when the Covid-19 pandemic began and lockdowns prevented further work. He then returned to work, alone, on the aircraft 10 days later. He stated that he had doubts about the correct path during the assembly of the new cables. He checked the Service Manual but the diagram was not clear and he had difficulties interpreting it.

The MOE specified that carrying out a task without independent inspection could only be undertaken if no other qualified person was available to perform and control the task. However, the procedure had to remain exceptional: troubleshooting flight-line operations or on a temporary basis.

The pilot declared that due to the absence of someone available to carry out an independent inspection, only four employees out of 39 having returned to work, he carried out the re-inspection himself three days after cable installation. He added that he was under significant stress due to time and financial pressure and an abnormal workload due to the exceptional circumstances generated by the pandemic.

The pilot indicated that at the holding point before lining up on the runway, he 'followed the pre- take-off checklist' and checked the free travel of the flight controls without looking outside the aircraft to confirm the correct direction of the aileron travel.

Accident 2

The pilot stated that he made a return trip to Pointe-à-Pitre, Antigua in a Piper PA32 the morning of the accident and then ferried the PA32 to Saint-François in early afternoon for maintenance. While there, he was asked by the operator to ferry a Piper PA23 Aztec, N529EG, an aircraft he

"The aircraft left the centreline in a steep bank, dragging the wingtip on the ground..."



had flown regularly in the past, back to Pointe-à-Pitre as the aircraft was needed for a flight to Dominica at the end of the afternoon.

The PA23 Aztec is equipped with two 250hp Lycoming IO-540 piston engines. It was built in 1975 and had a total of 5,587 flight hours. On PA23 type aircraft, the manual elevator and rudder trim controls are composed of a crank and a central knob located on the crank. These controls are located in the roof of the cabin. Turning the crank clockwise trims the aircraft nose up, turning the central knob clockwise moves the rudder trim to the left. The two trim position indicators are also located in the roof, behind the crank.

On light piston aircraft, the elevator trim control is normally located in the lower central area of the cockpit. N539EG was also equipped with an electrical trim system for controlling the elevator trim and connected to an autopilot. It consisted of an ON/OFF button in the upper left part of the instrument panel, a circuit breaker on the fuse panel and a switch on the pilot yoke (UP/DOWN) to control the elevator trim. This system had been deactivated several months before the accident following installation of new avionics, which had resulted in mutual interference.

On the pilot's arrival at the Saint-François workshop, a mechanic positioned N539EG ready for departure. The pilot didn't want to waste time as the aircraft was blocking the parking area and the taxiway to the runway. He stated that not having flown a PA23 for a long time, he had placed the flight manual within easy reach.

The pilot started the engines, checked the flight controls and carried out an engine run with the mechanic on board. The mechanic then left the aircraft with the engines at idle while the pilot prepared the PA23 for take-off. He set the flaps at the first notch then carried out a visual check of the various other cockpit controls and checked proper closure of the door. His check did not take in the overhead panels as he was not used to including these in his visual scan and he did not use a printed checklist or the flight manual.

The pilot stated that he applied power against brakes before releasing them and that the take-off run was normal. Upon rotation at 65kt he felt the controls were heavier than normal

The pilot was ejected from the cockpit area as it broke up in the 180kt impact"

and that after retraction of the flaps, the controls became heavier still and the aircraft had a tendency to pitch down.

The pilot tried to use the electrical elevator trim located on the control yoke, then the manual control in the lower part of the instrument panel without finding it. Although he was initially able to overcome the nosedown moment, the load on the control column required to maintain a positive pitch attitude increased rapidly with speed. The pilot had to keep both hands on the control column to counter the forces and was therefore unable to reduce the power of the engines.

Unable to prevent his descent, the pilot made a right turn above the bay of Saint-François avoiding boats and dwellings and witnesses saw the aircraft subsequently hit the water

surface hard in the lagoon and sink. The investigation found that the aircraft hit the water at around 180kt. The subsequent dislocation of the cockpit area allowed the ejection of the pilot's seat forward during the high speed impact with the sea and fortuitously spared the pilot more serious injuries or even death.

The pilot had no memory of the impact until he found himself on the water surface still attached to his seat. When he became detached from the floating seat he clung onto it as he could not swim and waited to be rescued by local boats. He believed it possible that he took off with the elevator trim incorrectly set and that time pressure due to the need to ferry N539EG promptly, as well as a need to clear the aircraft parking area, led him to ignore the printed checklist and to carry out only visual checks.

Ayres' Analysis

We have read 1,000 times in these columns the importance of doing checks, especially pre-take-off checks, and of doing them precisely. And yet we still think we can get away without being meticulous. Using a checklist doesn't even indemnify us from errors. Doing the checks and doing them thoroughly are, alas, two entirely different

Part of the problem is that, of course, we believe we 'know' better. Having just rigged the flying controls himself and checked them three days later, the pilot was only checking 'full and free' and not 'full free and correct sense'. How could the controls be mis-rigged when no one could have touched them since he last worked on them?

And we all know how to use the elevator trim, don't we? We know where to find the electric trim switch, where the manual backup is located, don't we? And we know that if we get airborne with the trim mis-set we simply deal with it in the course of the take-off run... don't we? As the pilot in the second accident discovered, knowing most of the answers to these questions was not enough to save his aeroplane – and almost cost him his life.

The point is that in almost every case, following the checklist averts this kind of accident but we often shy away from doing so or at most, only giving it a cursory glance, because 'we know' everything will be alright. If, as in these two cases, the pilots had known beforehand that an error they were going to make in the pre-take-off checks was going to cost them their aeroplane and probably their lives, we can be sure they would have got out that checklist out and gone through it forwards, backwards and every which way, before releasing the brakes.

For most of us, most of the time, we don't know who has left what control in which place, nor even what was worked on the last time the aircraft went into the hangar. So perhaps we should approach our pre-take-off checks with a view that something is going to catch us out on the next flight unless we get them perfect. After all, relying on being thrown out of the cockpit still attached to your seat at 180kt is not something I want to rely on for my next landing!



Safety Accident Reports

Never too late to turn up the heat!

Steve Ayres summarises and comments on accident reports from around the world and in this month's Safety Kit looks at how best to prepare for that 'unthinkable' ditching.

Carb heat havoc (1)

Cessna 150 N3795J

Fulton, New York

Injuries: One serious

After descending with the engine power above 2,000rpm, the pilot entered the traffic pattern for the destination airport. Just after turning onto the base leg of the pattern, the pilot applied the carburettor heat and the engine 'faltered' and lost partial power. The pilot then deactivated the carburettor heat and the engine regained some power. He reapplied the carburettor heat and the engine stopped. He attempted to restart the engine but was unsuccessful. While performing a forced landing to a road, the right wing impacted a utility pole and the aeroplane rolled over and sustained substantial damage to both wings and the fuselage.

Comment: The weather conditions at the time of the accident were favourable for carburettor icing at altitude and at the surface. It is likely that carburettor ice developed during the descent. When the pilot applied the carburettor heat while in the traffic pattern, the ice began to melt, which introduced water into the engine intake and resulted in the engine losing partial power. The pilot's subsequent cycling of the carburettor heat at a relatively low power setting likely resulted in the total loss of engine power.

Carb heat havoc (2)

Piper PA28

N5575U

Parker, Colorado

Injuries: None

After completing the pre-flight inspection, the pilot reported a normal engine run-up and recalled checking the carburettor heat and

magnetos twice before take-off. He started the take-off roll and noticed that it was a 'little longer than normal' and that the aeroplane's climb performance was poor. He applied carburettor heat, noted a loss of rpm, then turned the carburettor heat off.

Shortly thereafter, the aeroplane started to descend, and the pilot performed a forced landing to a field.

The atmospheric conditions at the time of the accident were conducive to the formation of serious carburettor icing at cruise power settings. It is possible that carburettor ice formed before departure, when the engine was operating at a low power setting, which resulted in a partial loss of engine power during the initial climb. **Comment:** Damp days when the dew point is close to the air temperature always demand respect.

Mist or fog can spoil your plans, but it is those carburettor-equipped engines that are at greatest risk which, of course, comes in the form of carb-icing. With air temperatures still very much in the 0-15° range that risk can be at its greatest and carb heat is invariably required. But the consequences of applying it can be misunderstood. These accidents remind us that first impressions are not always correct and that too much carb heat is rarely detrimental. Too little on the other hand, and a failure to maintain it, can be terminal.

Unfortunate loss

Europa

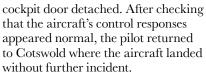
G-FLOR

Brinkworth, Wiltshire

Injuries: None

The pilot was on a local flight from Cotswold Airport with a passenger. The aircraft was flying at approximately 100kt and 2,500ft amsl when, without warning, the left

"Too much carb heat is rarely detrimental..."



Subsequent inspection of the left tailplane identified minor damage to the leading edge and upper surface consistent with it having been struck by the door. This was the eighth event involving the inadvertent opening of cockpit doors fitted to Europa aircraft operated in the UK. The LAA have developed and issued a modification to the Europa to prevent the door latch lever reaching the closed position when the door is not properly latched.

LAA Airworthiness Information Leaflet MOD/247/012, is mandatory and is required to be applied within five flying hours of the issue date, or next Permit revalidation, whichever comes first.

Comment: The pilot reported that several times he checked that the left-hand door was latched but that it was difficult to confirm properly with a passenger sitting in the seat next to him, and that the passenger had difficulty doing so also because of the proximity of the door. Ultimately though, an incorrect assumption was made about the security of the door. It is little comfort that the pilot was not alone in making this mistake which is why the time has come for an engineering solution to mitigate the risk of an accident 'waiting to happen'... again.

Terrifying upset Jabiru J400 G-CCPV

Teyioyhead, Scottish Borders Injuries: None

The pilot used an internet forecast to check the weather and noted a south-westerly wind of 20kt, good visibility, and overcast cloud with a base of 3,500ft. The pilot departed from a privately owned airstrip in the Scottish Borders area with an intended destination of Sleap.

The highest spot elevation in the vicinity of the planned route was 1,953ft amsl. The pilot requested and received a basic service from Scottish Control. While flying at 2,500ft approaching high ground to the north-west of the Spadeadam danger area, he estimated there was 800ft between cloud base and high ground.

The pilot reported that as he was approaching the highest point on his planned route the cloud suddenly descended and he entered it. He attempted to climb using full power and became disoriented. He felt that the aircraft stalled and that he had lost control. The aircraft completed three 360° right turns before it emerged from the cloud. The aircraft was in the cloud for between three and four minutes.

The pilot headed for the only area that he could see was clear of cloud and inadvertently entered the Spadeadam danger area. The controller noticed G-CCPV had entered the danger area and contacted the pilot. When informed that the pilot had lost control in IMC the controller offered help and coordinated with the Spadeadam controller. The Scottish controller proactively followed up with the pilot of G-CCPV later in the flight to check on his safety.

Comment: This must have been terrifying. Unplanned entry into cloud is bad enough but add in high ground into the mix, limited aircraft performance and dated instrument flying practice and the odds of survival diminish rapidly. Some instrument flying skills (and an IFR capable aeroplane) improve matters, but for most of us staying well away from the cloud base is crucial and turning back early before the 'letter box' slams shut is an absolute must.

Look and listen

Pitts S1/Rutan Varieze N31WK/N27GM

Torrance, California **Injuries: One minor**

The pilot of the tailwheel-equipped biplane had landed and was taxying to his hangar while monitoring the tower frequency. The pilot did not perform S-turns during his taxi and was not informed of another aeroplane in his proximity. The pilot of a low-wing aeroplane was parked near a movement boundary area. He



"He attempted to climb in cloud, but felt the aircraft stall..."

watched the biplane taxi down the taxiway without performing S-turns. The pilot of the low-wing aeroplane had previously contacted the ground controller and was not informed of the taxying biplane. The biplane impacted the low-wing aeroplane, resulting in substantial damage to the low-wing aeroplane and minor damage to the biplane.

Comment: Torrance is a busy place with more than 500 GA hangars and split tower and ground frequencies. So, failing to clear the area in front of your own aircraft while taxying and not being on the same frequency as other airfield traffic, just aligned two of those infamous holes in your piece of Swiss cheese. All you need now is for there to be another aircraft in front of you and...

On the Edge

Edge 540

G-EDGY

Tempsford Airfield, Bedfordshire Injuries: None

During an aerobatic flight, as the pilot applied a full left aileron control input, the centre hinge attachment for the right aileron failed. This allowed the

right aileron to bend up in the centre and fail before detaching from the aircraft. Only a small inboard section of the aileron remained attached. The pilot had sufficient control remaining to make a safe landing.

The investigation found that the centre hinge attachment for the right aileron failed due to fatigue cracks developing to such an extent that the parts were no longer able to carry the required load. These fatigue cracks had multiple origins indicating that they were not due to a material feature or flaw. The aircraft manufacturer has issued a service letter to all known owners recommending regular detailed inspections of similar aileron centre hinge attachments.

Comment: Sometimes critical areas are hard to get access to and hinge brackets in particular rarely get a proper inspection unless there is a major strip down of the control assemblies. However, this accident reminds us that in high-hours aircraft and those used for aerobatics, hinge brackets take significant punishment and therefore benefit from more than the occasional cursory glance.

Safety kit —

Blue Water Ditching: Training for the unthinkable

AMAZON UK: Paperback £11.17 or £2.51 on Kindle Click here

I suspect many of us are planning a bit more over-water flying this year as the world 'unlocks'. And, having done my time 'bobbing about' in the North Sea, I can confirm that having the right kit on board for a survival-type situation massively improves your chances of

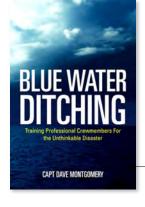
rescue, but knowing how to operate it or simply being mentally prepared, is just as important.

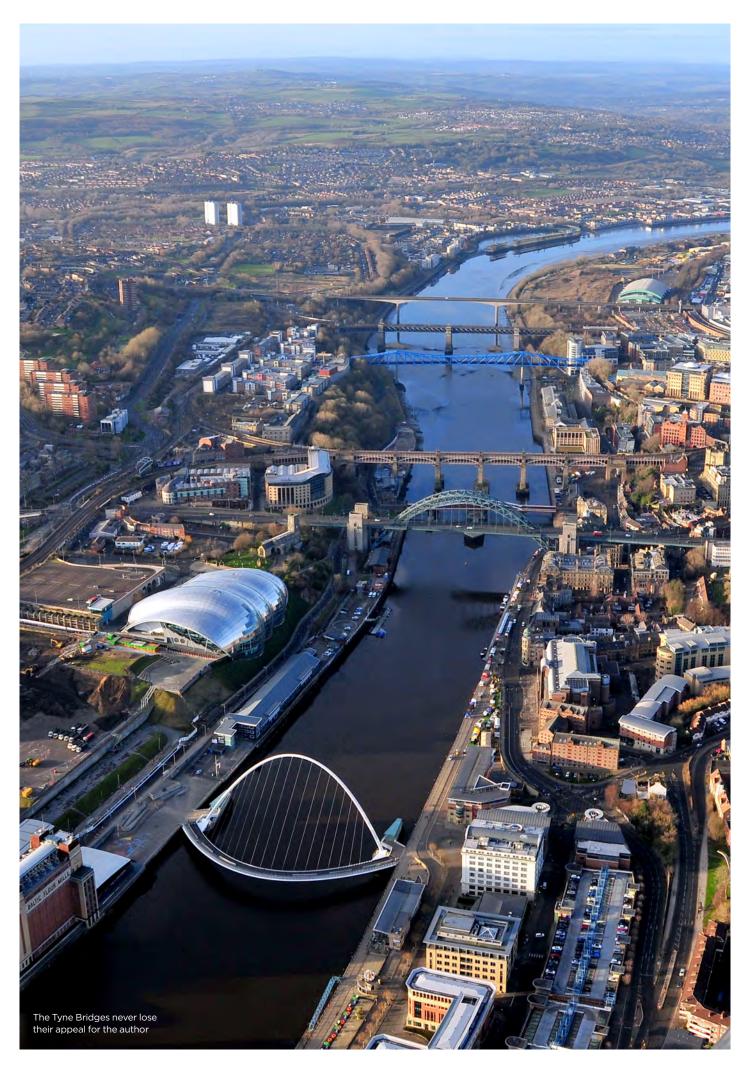
Much of the desirable 'hardware' has been discussed in this column on numerous occasions and includes, dry suits, life-jackets, dinghies and first aid

kits... but why not brush up on some of the techniques in order to make the most of your kit.

The CAA has a Safety Sense leaflet (No. 21d) on the subject and although you will have to look past the Box Brownie quality photographs, the lessons are as valid now as ever.

If you fancy something on a more 'global' scale then Blue Water Ditching by Capt Dave Montgomery is worth a read. Although it mainly covers ditching over five miles from land, much of what he describes has relevance for all of us. After all, ending up in a river or small lake can be as fraught for the unlucky crew as for those who find themselves caught out mid-Atlantic.







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A winter's tale

Never one to refuse a clear blue sky, **Paul Kiddell** kicks off his personal #FLY2022 challenge with a feast of flying in the coldest winter month, January...

he UK winter offers truly exceptional flying opportunities. Huge skies full of drama, cold crisp mornings with fantastic visibility and incredible landscapes highlighted by the low winter sun. As a bonus, your trusty steed will enjoy great performance in the cold dense air. Of course there are weather and grass strip water-logging challenges so, inevitably, you'll need lots of patience.

While I'm lucky to fly out of Eshott with its two hard runways, we had to endure a very windy festive period in the North East. For three weeks solid, I was sitting in my Christmas jumper nursing a large glass of red, staring out of the window at the clouds zooming by.

But weather always changes and suddenly boom, high pressure arrived and I enjoyed the best January flying since I got my licence 10 years ago. Here's just four days from my busy January flying diary, which hopefully encapsulates great flying days with great mates.

Mon 17 Jan: Eshott / Sturgate / Leicester / Breighton / Eshott (5hr airborne)

On 17 January, and with high pressure dominating, fellow syndicate member Alex Smith and I set off early from a frosty Eshott in our faithful Evektor Eurostar G-CEVS. Accompanying us south in wonderful CAVOK conditions was my old friend, John Knowles, in his group Eurostar SL. During Storm Arwen, John's group sadly lost their Eurostar

classic when it was destroyed in a hangar collapse (gusts of 98mph were recorded at the nearby RAF Brizlee Wood Radar Station). Fortunately, the insurer was quick to settle (bravo Visicover!), and in just a few weeks the group merged with our pals in the SL syndicate.

My flying buddies and I have a dedicated trip chat group, and we'd arranged to meet at Sturgate for breakfast before moving on. As Alex flew, I did formation radio calls and we were immediately cleared through Newcastle and then the Teesside CTA (in case you missed it, the 'Durham Tees Valley Airport' reverted to 'Teesside' in 2019).

Low-level over the Yorkshire Moors, we orbited two temporary masts which provide TV to the North East and North Yorkshire. The original 300m Bilsdale mast was a prominent VFR navigation landmark and provided TV to some 670,000 households but had to be demolished after a serious fire in August 2021.

Flying down Yorkshire we took advantage of wonderful light to enjoy some air-to-air photography with John in the bright green SL – to them 'British Jaguar Racing Green', but to me it's a bit 'lawnmower green', so I call it the 'Qualcast Queen'.

In no time we crossed the Humber and briefly followed the Trent before arriving on Sturgate's R27. Centrally located, Sturgate has become a real favourite in recent years with ongoing free landings, competitively priced avgas and a friendly café. Nigel Hitchman had already arrived from Hinton in his Vans RV-6 and we were further joined by great pals Ben Davies and Jon Crook in Ben's smart Pioneer





Above right Teesside

Airport
Right One of the
temporary TV masts on
Yorkshire Moors
following the
destruction of the
Bilsdale Transmitter
Below John Knowles in
his group Eurostar SL





"Short winter days require time-keeping discipline when flying some distance away"



300. Eurostar owner Jon had flown up to Finmere from Brown Shutters to join Ben for a trip out in the Pioneer and was clearly enjoying having a go at flying the Pioneer with its VP prop and retractable gear. It was so good to catch up over breakfast with flying friends from all over England in the depths of winter.

Leicester was next and Alex felt the need for speed so jumped in with Nigel for some RV fun. As the RV and Pioneer speed off, John and I followed in the Eurostars at a more civilised 85kt for the 30-minute flight south. Re-joining the Trent in glorious conditions, I introduced John to the excellent Newark Air Museum, which is impressive from the air with a great range of iconic aircraft, including a Vulcan and Shackleton on external display. Sadly, the runway at Winthorpe has been closed for some years but it's well worth a drive to see the 70 aircraft on display.

Leicester was busy as ever with both fixed-wing and rotary training, but a standard overhead join integrated us with the circuit bashers and a Pitts S-2A, and we landed on the 935m R28, one of three tarmac and two grass runways available. Naturally, the RV and Pioneer had beat us, and Alex had really enjoyed a blast around at 150kt. Up in the bustling restaurant, we met top pal, Simon Wilson, who flies some really interesting types courtesy of generous friends. I hadn't seen him since he flew the very French Nord NC-856 Norvegie to the LAA rally so it was great to hear his latest news.

More tea, top banter and suddenly we ran out of time. The short winter days require good timekeeping discipline when you're flying some distance away, and those who know me will acknowledge that it's a skill which is largely absent from my toolbox!

Departing as a four-ship, I'd promised to do some air-to-airs of Ben's new Pioneer, so while Alex kept the Eurostar at 90kt, Ben slowed for pictures. No sooner had Ben positioned in starboard echelon than Nigel joined too – what a testament it is the versatility of the RV-6 that he didn't even need flap. While it's challenging taking pictures through the Eurostar bubble, I was really pleased with the results, although the timing wasn't quite right to use magnificent Belvoir Castle as a backdrop.

With time marching on, Ben and Nigel peeled off home while our two Eurostars made for Breighton for a fuel stop. Wonderful Breighton is ideal for a quick splash and dash with 24/7 credit card avgas and Jet Al pumps close to the expansive grass runway which



was in very good order for January. While we fuelled, two resident Stearman taxied by at the end of what was undoubtedly a great winter's day of open cockpit flying.

After the briefest of stops we got airborne for the hour-ish long trip back to Eshott. A climb to 2,500ft revealed a stiff headwind that wouldn't see us home until 45min after sunset, but a descent back to 1,000ft AGL was much more encouraging. As ever Sky Demon's ETA feature and GPS ground speed was a godsend.

One unexpected consequence of running so late was that 17 Jan happened to be the full Wolf Moon and we enjoyed an incredible view in clear twilight skies. Interestingly, the name comes from native North Americans who associated January with an increase in the frequency of wolves howling.

With both Teesside and Newcastle granting us a direct track to Eshott through its zones, we finally landed at 1638, exactly at sunset + 30, after a brilliant day with five hours airborne – certainly no one could accuse us of not getting our money's worth.

Thur 20 Jan: Eshott / Sleap / Halfpenny Green / Eshott (5.6hr)

With high pressure continuing, a further call to arms saw Alex and I depart Eshott at 0900 to meet friends at Sleap. The first part of our journey took us west, low-level at 500ft AGL along Hadrian's Wall where the low winter light highlighted every detail in this famous world heritage site. Turning south to fly down the eastern edge of the Lake District, we were cautious, as while surface winds were calm, the northerly winds aloft were still strong enough to present a rotor hazard over the mountain peaks.

For those unfamiliar with mountain flying, I can highly recommend the excellent New Zealand CAA mountain flying guide as a great start point *here*.

Amazingly for January, there was hardly any snow visible even on the highest peaks, which rise to 3,209ft at Scafell Pike. Windermere, England's largest natural lake at 10.5 miles long, is always worth a diversion en

Above Visiting Pitts S-2A at Leicester **Below** Ben and Jon in the Pioneer, and Nigel in the RV-6 formate on Alex and the author near Belvoir Castle



Below Decommissioned Cottam coal power Station on the River Trent





route and looked magnificent with a large number of yachts remaining in the water throughout the winter. Surprisingly, Windermere has some 18 islands and on the largest, Belle Isle, we spied the 18th century round house that Wordsworth once described as a 'pepperpot'... Perhaps he was still building up to 'I wandered lonely as a cloud'?

Any early morning fog was long gone as we descended into the Manchester Low Level Route (LLR). As most know, the LLR is a 4nm wide corridor running north-south between the Manchester and Liverpool CTRs. While it remains part of the Manchester CTR (Class D), it enables pilots to transit without a clearance not above 1,300ft on the Manchester QNH, while monitoring Manchester on a listening squawk. It also allows you to fly below 1,000ft

at Breighton Below Stearman at Breighton at the end of a great open cockpit flying day

Above Splash and dash above built-up areas, although you have to retain the ability to land clear and must remain 500ft from person, vessel, vehicle or structure.

> The LLR operational detail changed significantly in 2021 and, if you aren't a regular, then it's important to refresh yourself - the full requirements are in the Manchester Airport AIP entry (usefully, the complete AIP textual entry is available on SkyDemon under information for Manchester Airport). While opinions vary on the LLR, I really enjoy the opportunity to fly low-level over the fringes of built-up areas, although there are plenty of green spaces should you need them. I'm comfortable at very low-level and generally transit the LLR at 500ft AGL, which is around 600-800ft on the Manchester Airport QNH, and that keeps us below most other LLR traffic.





Exiting the LLR, we avoided Ashcroft which remains an active field with multiple runways. On SkyDemon (fed by Pilot Aware), we could see our good pal Roger Iveson from Yorkshire rapidly catching us up in his Dynamic microlight so, having raised him on the microlight air-to-air frequency (129.835), we orbited Beeston VRP to wait. The VRP is actually the impressive Beeston Castle, built in 1220 atop a rocky crag some 350ft above the Cheshire plain. It endured a bloody history, including a year-long Civil War Parliamentarian siege between 1644 and 1645 with Royalists only surrendering when they finally ran out of food. Just south of Beeston is the more recent Peckforton Castle, now a luxury hotel, and the two combine to make an impressive view.

With Roger now in tow, we called Shawbury Zone. RAF Shawbury is the centre of UK military rotary training and is very busy during the week with the black and yellow-topped H135 Juno and H145 Jupiter helicopters operating down to ground level both within the MATZ and outside in the wider countryside. As well as speaking to the MATZ controller, we could see multiple RAF helicopters on our SkyDemon/PAW which really helped our situational awareness. Sleap is within the Shawbury MATZ and has an excellent relationship with its military neighbours which sees the helis operating on the Sleap deadside during the week.

After a little more than two hours, we arrived at Sleap to the welcoming tones of airfield manager Bruce Buglass who was manning the radio. Bruce and his enthusiastic team have worked exceptionally hard to make Sleap a real go-to destination in recent times I

"Sleap a real go-to destination and its success is measured in the airfield's ongoing popularity"





Above left Enjoying the Wolf Moon heading home after sunset on 17 January Above right Housesteads Fort on Hadrians wall

Above Windermere and The Round House on Belle Isle that Wordsworth referred to as a 'pepper pot'

Below Low level in the Manchester LLR, passing the Warrington Wolves rugby league stadium











Top Ben Gilmore's 150hp Super Cub with STOL mods

Middle Steve Ivell and Steve Ridge's very smart, recently completed Europa which they purchased as an unfinished kit

Above The 'Dynamic duo' - John Stubbs and Roger Iveson in their Dynamics at Halfpenny

Above Peckforton (foreground) and Beesford Castles, just south of Manchester LLR

and its success is measured in the airfield's ongoing popularity. Parking at the pumps for UL-91, we met Ben Gilmore, the airfield deputy manager, who was fuelling his group 150hp Super Cub, fitted with 31-inch tundra tyres, vortex generators and a 117L belly tank - quite the STOL machine! Those at the 2021 LAA Rally will remember Ben, Bruce and their pal Tom Beever arriving en masse in their Taylor Monoplanes and bringing some very welcome youthful energy to the weekend.

Alex, Roger and I were soon joined by Nigel in the RV-6, John Stubbs in his Dynamic, Chris Theakstone in his Eurofox and Steve Ivell in his very smart, recently completed 100hp Rotax 912ULS powered Europa (which he and pal Steve Ridge purchased as an unfinished kit) and we all enjoyed an excellent breakfast in the Pegasus Café.

I caught up briefly with Bruce who was buoyant about the airfield's future with an impressive 160 resident aircraft, which, combined with record visitors, are supporting large fuel sales, a popular café and an extensive events programme – it really is great to see wonderful Sleap thriving under the leadership of a dynamic management team.

Chris and Steve had to return home but the rest of us departed as a four-ship for the short flight to Halfpenny Green. The sunshine had brought out plenty of aviators but aided by the cheery FISO, we soon landed on another expansive former wartime runway, the 1182m R34. RAF Halfpenny Green was originally named RAF Bobbington when it opened in 1941 but the name was changed in 1943 to avoid confusion with RAF Bovingdon, somewhat ironic as it was home to a navigator's school. I hadn't been to '1/2P Green' for a couple of years and we received another warm welcome. The airfield was certainly very busy with fixed-wing, helicopter, microlight and gyros all training in the circuit. A wander around the hangars revealed some interesting aeroplanes including the rare Christophe Robin (son of the late,



legendary Pierre Robin) designed 1995 Dyn Aero CR 100 aerobatic aircraft G-BZGY, which once served with the French Air Force. Christophe had designed it as part of his university studies!

Yet again time was against us and we said our goodbyes to Nigel and Stubbsy. As we got airborne, it was clear the headwind was strong enough to force us into a long, three hour-ish direct flight back to Eshott. While Roger's 100hp sleek Dynamic normally cruises at 100kt he was happy to fly at 85kt to stay with us and we enjoyed some excellent views as we flew across the scenic Peak District.

My dad spent his working life driving JCBs and I enjoyed flying over their factories at Uttoxeter spotting huge numbers of the iconic yellow machines before we had a good look at Alton Towers, which was nestled in the trees. Further on, Chatsworth House, owned by the Cavendish family since 1549, looked truly magnificent. Next to the River Derwent,

Above The impressive Chatsworth House and surrounds

Right Houston we have a massive problem -L-R, Nigel, Alex and Stubbsy at Elvington Below Argus and Halifax at Elvington







Chatsworth has been voted Britain's favourite country house on many occasions and from above you can certainly see why – a top aerial view that should be on every pilot's list.

We finally arrived home with time to spare at Sunset +20 after a bum-numbing 3.2hr transit. It had been yet another memorable January day with almost six hours airborne (burning around 11L/hr of super unleaded/UL91) and not for the first time Alex and I resolved to get some extra foam for the seats.

Fri 21 Jan: Eshott / Elvington / Eshott (2.7hr)

The day after the Sleap trip, Alex and I visited the excellent museum at Elvington, again with Nigel and Stubbsy. PPR is straightforward and the £25 landing fee includes museum entry for the pilots.

As well as the large aircraft collection spanning the history of aviation (including the huge Halifax bomber), it has a very good café, which can be highly recommended! **Above** Roger Iveson over his native Yorkshire

Below left Miles aeroplane owners Stu Blanchard and Nick Lee enjoying the Tiger Moth at Sherburn

Below right York Minster

Sun 30 Jan: Eshott / Sherburn / Rufforth East / Full Sutton / Eddsfield / Eshott (4.8hr)

On 29 January the North East again endured gusts of over 90mph during Storm Malik but fortunately damage at Eshott was confined to some bent hangar doors. While Storm Corrie was following close behind, the following day (January 30) offered a brief flyable weather window in the east and we arranged to meet the gang at Sherburn. Alex was working, so my microlight pilot pal Duncan McDougall accompanied me south. As probably their best January customers, the Newcastle controllers treated us like old friends and cleared us on our well-trodden path over the airport and city centre — the view of the Tyne and its seven bridges certainly never gets old.

We'd planned to meet Roger overhead his Felixkirk base, and facilitated by our mutual ADS-B out and PilotAware, Roger got airborne in the Dynamic just as we arrived overhead. Continuing south we took advantage of great light to do some air-to-airs before





"Rufforth East doesn't require PPR, but do acquaint yourself with its detailed procedures"

Roger accelerated ahead to order us all breakfast.

Sherburn is another busy training field and some care is required during an overhead join not to infringe the Leeds East (formerly RAF Church Fenton) ATZ to the north. Stubbsy was already in the circuit along with an RV-7, a T-67 and two circuitbashing PA-28s, but as ever it all worked out and we arrived to find Nigel and Dave Haines in Nigel's RV, Stubbsy and Roger in their Dynamics, and the Leicester gang of Nick Stone and Balbir Singh Dhindsa in their Eurostar SL and Alec Brisley in his Eurostar – a great short-notice turnout!

Digby's café at Sherburn is a great, roomy venue and we were soon tucking into yet another full English. Out on the grass our friend Nick Lee was taxying out in the resident Tiger Moth for a sunny, if chilly, sortie. Nick owns the well-known Miles Messenger G-AKBO, and with him was Stu Blanchard who owns a Miles Messenger, Mercury and a Gemini!

Suitably refreshed, we were soon airborne in a six-ship loose gaggle to fly the short distance to Rufforth East just west of York. Rufforth East is a busy sports aviation field with many based fixed-wing and flexwing microlights, gyrocopters and LAA types. It requires real care as the western half of the former RAF airfield is home to the York Gliding Centre and there is, in effect, a 'hard-wall' between the two that operate on different frequencies. As a result, landing on 05 at Rufforth East is pretty challenging - even in a fixed-wing microlight you have very little time to sort yourself out as you turn final in the very tight area available. Conversely, our landing on the 500m R23 was straightforward, although again you must make sure you don't infringe the gliding side during your overhead join.

Rufforth East doesn't require PPR if you first acquaint yourself with its detailed procedures *here*.

As we approached, a C42 and a gyro were recovering, so we flew over York to take some pictures while things calmed down. I couldn't help but steal Alex's favourite line when flying over York and pronounced 'It's a shambles down there'... still makes

Arriving at Rufforth we were warmly welcomed by the legendary Dave Sykes, a flexwing pilot and BMAA inspector who, in 2011, flew solo from Rufforth to Sydney in his P&M Aviation Quik. Over four months, Dave flew for 257hr, covering some 12,500 miles as he passed through 19 different countries. As if that wasn't impressive enough, Dave is a paraplegic wheelchair user and did the entire journey totally unsupported. For me, one of the greatest British flying achievements EVER which was detailed in Dave's book, A Wing and a Chair.

For the past few years, the irrepressible Dave has been preparing to fly to the North Pole, but with Covid and now a deteriorating international situation, it is likely to be delayed for at least another year.

Chatting with the friendly residents, airfield owner

Steve Beckett reported the café should reopen in the spring which will be a great addition. Too soon we said our goodbyes and departed to Full Sutton, just the other side of York.

Immediately west of the airfield is HMP Full Sutton and like other Category A high-security prisons, it is covered by a Restricted Area (in this case EGR315) SFC-2000ft. While it only applies to helicopters, Full Sutton arrival procedures make it clear that direct prison overflights must be avoided.

Giving the prison a wide berth right downwind for R22, we fly over the site of the Battle of Stamford Bridge, where Harold's army decisively defeated the Vikings on 25 September 1066. Of course, his exhausted troops then had to quickly return south to face the invading Normans at Hastings... Its subsequent defeat on 14 October 1066 changed English history forever.

Below Team at Full Sutton Middle Tim Nettleton's lovely Andreasson BA-4B at Full Sutton **Bottom** Landing over the trees at Eddsfield









Like Rufforth, Elvington and Breighton, Full Sutton is another former WWII Yorkshire Halifax bomber base but it now uses a grass runway and we arrive in turn on the 772m R22.

Again the Yorkshire folk were very friendly, and before taking up their invite for a large brew, we admired Tim Nettleton's classic Andreasson BA-4B aerobatic biplane powered by an O-200-A. I'd kept a close eye on Storm Corrie approaching from the NW Above Stubbsy landing at Eddsfield over the trees... being judged by Roger

Below Alec Brisley in his Eurostar G-CCTI which with 5,700 hours, is the highest time Eurostar in the UK - perhaps the world...

"Even with Storm Corrie rapidly approaching, it was a smooth flight home"

and judged we just had time for a last brief stop at Eddsfield, just 10 minutes flying time away. Very scenic Eddsfield, in the rolling hills of the Yorkshire Wolds, is a real favourite of mine. Created by Edd Peacock in the early 1990s, there are tall trees short of the 27 threshold which do focus the mind, but even after the displaced threshold, you still have 700m of grass available.

Our six-ship included first time visitors, Nick, Balbir and Alec and as we assembled in the clubhouse (always open with self-serve brews) to pay the bargain f_{0} 5 landing fee, it was clear that everyone really enjoyed the interesting approach which also had a double figure crosswind coming over the hill.

But no time to waste and soon we said our goodbyes and all departed this gem of an airfield in the stiff breeze. Despite storm Corrie rapidly approaching, Duncan and I enjoyed a surprisingly smooth flight home and tucked up G-CEVS in her hangar a good hour before yet more strong winds and rain arrived. And so ended a fantastic month of January flying during which I was very fortunate to spend some 25 fun hours aloft in G-CEVS.

I visited 13 different and interesting airfields and saw some of the amazing sights the UK has to offer. But most of all, it was a total pleasure to meet, and fly alongside, super friends from all over the country – a truly epic start to 2022. Have fun completing your own personal #FLY2022 challenge and I hope to see you around!





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ilot watches are almost as polarising as Marmite and Brexit. For those of you insisting that your £6.99 Lidl special delivers everything you need in a watch, you'll be pleased to hear that you're right. For those of you who like the look, feel, function, brand and servicing costs of a heavy £7,000+ watch, you're also right. Guess what, if you like the idea of a smartwatch that has a bunch of flying functions too, then congratulations, you are also right. Nobody is forcing Breitling fans to wear an unbranded G-Shock lookalike from Amazon (currently available for just 89p!), nor forcing anyone else to sell their grandmother's kidney in order to fund something that sells for north of \$40,000 either.

Now that's out of the way, let's take a look at the latest smart pilot watch from Garmin, the D2 Air

X10. The X10 replaces the previous D2 Air, it retains the same shape (slim and relatively light rather than the chunky and heavy of their D2 Delta watches), and although it looks similar, it is slightly bigger, slightly heavier, has more pixels and a battery that lasts noticeably longer (up to seven days in simple smartwatch mode). When paired with a suitable mobile phone you can use the X10 to make and take phone calls or to talk to Siri/Google Assistant to do whatever you usually do by talking to your phone.

It might not have escaped your notice that Garmin also has a great presence in the wearable/fitness market, and the X10 comes complete with software and modes that can be used for running, walking, cycling, swimming (waterproof to five ATM, which I think means you're good to a depth of 50m), and all sorts of other sports too, so if you use a sports watch to









track your exercise, think of the X10 as a dual function watch...

So what makes the X10 a pilot watch and what aviation functions do you get for your money? There's a built-in GPS, and while there's no way that you'd want to use your watch for navigation (there's an HSI screen, but no moving map, so no depiction of airspace) you could navigate directly to any point in the (extremely) unlikely event of everything else failing. To help with this there's a worldwide updatable aviation database installed. You can also use the watch's GPS as an external position source to fly with a non-GPS equipped tablet.

The barometric sensor will give you real-time altitude. Yes, you can change the pressure settings, and yes, you can choose to set that in inches, mmHg, minibars or hectopascals. I know we all (I hope) have altimeters, but with the X10 you can set altitude-based alarms, useful if you are flying somewhere there's a risk of a vertical infringement, or to remind you to switch the O2 on as you climb through a set altitude, if high flying is your thing.

Speaking of oxygen, there's also a pulse oximeter, so if you are flying high you can monitor your blood saturation levels. This isn't a medical device, and given the physical limitations is better suited to monitoring trends rather than absolutes, although every time I have tested it against a finger oximeter, it has been within 1%, so more than accurate enough for safety decisions when flying. Should you fly an aeroplane where you need to change tanks, you can set a timer for that, and when the time comes the watch will buzz to remind you.

Additional functions include flight recording for your electronic (Garmin) logbook, and access to METARs if you are paired with your smartphone. With all of these functions you might think that



navigating your way through the various menus via the buttons (there are three) and screen swipes/presses is going to be complicated. You're right, well, sort of. Being a bloke of a certain age my approach to tech like this is to charge it up, put it on, press some buttons and see if I can figure it out. That kind of works, but only gets you so far, and sooner or later you'll need to refer to the online manual which does a pretty good job of explaining all of the functions.

To sum up, the D2 Air X10's a very capable smart watch. While you can absolutely spend a lifetime of flying aeroplanes without needing any kind of pilot watch, this one has enough pilot-centric features to make it useful. If you also have a need for a smart sports watch, it's pretty compelling, even if it does cost more than 89p. **Ian Seager**

Top left There's no moving map with airspace but for emergency nav there's an HSI display Top right You can set the barometric altimeter to update from local METARs... Above ...which can be displayed along with other airfield information (not shown)

ssociatio Looking after General Aviation The UK's flying associations at work

BMAA Positive process

Along with other flying associations, we've made representation to the CAA regarding its treatment of airspace infringements. 'Warning' letters, covert decision-making and the absence of an appeals system were high on our list.

I'm pleased to say that CAA has listened to our combined concerns and there are improvements. The language has been softened, a revised CAP1404 circulated and agreement reached that the process needs to be more transparent.

Further to this is the creation of the

Independent Review Panel. Fully independent from the CAA, the IRP will consider whether or not CAA followed its processes correctly when reaching a decision. Given the majority of complaints about airspace infringements relate to process, this is a positive step.

As part of this improved transparency, I was invited to sit in on an Airspace Infringement Coordination Group meeting – ICG is the body that considers infringements. It was clear members of the group had extensive practical aviation knowledge (many are senior instructors)

and displayed a positive approach to resolving problems. Encouraging.

We're also busy organising the BMAA Instructor Seminar bringing together most of the UK's microlight instructors for the latest updates. We're finalising our 600kg differences training material, soon to be published on the BMAA website. 600kg is here, updating instructors is part of the introduction. Rob Hughes



British Microlight Aircraft Association

LAA Fuel for thought

In September 2021, most mogas sold in the UK moved to E10 spec, enabling up to 10% ethanol. This is a significant worry as an estimated 2,500 aircraft and microlights use automotive fuels bought from forecourts and stored in cans to enable operation from small strips.

This is bad news. The chemical is a powerful solvent which can corrode metal parts and attack non-metallic components; carburettor floats, gaskets and pipes. It's surprising how many materials are affected by ethanol, and how many of them can be found in a fuel system.

In addition, ethanol forms a very weak molecular bond when in solution with petrol and readily absorbs water. Changes in atmospheric pressure and ambient temperature can make the water/ethanol mix come out of solution with the petrol, sink to the bottom of the tank and feed the engine with a non-combustible liquid.

Of course we all check fuel samples on the ground, but lowering temperatures at altitude can promote sudden and drastic separation. Even if the gascolator isn't overwhelmed by the quantity of water/ ethanol, the remaining fuel, now devoid of ethanol, will have a reduced octane rating.

If there's no alternative to the use of mogas, for engines previously eligible to use E5 mogas, Super Unleaded fuels may be considered as these contain a maximum of 5% ethanol. A still better alternative is UL91 avgas, which can be supplied in small quantities. This unleaded fuel is blended to aviation standards, and does not contain ethanol. It might be more expensive, but how much is your engine (and your neck) worth? Steve Slater



Light Aircraft Association www.lightaircraftassociation.co.uk

VAC Outside the box

The Vintage Aircraft Club was founded in 1964 as a club for owners, flyers and enthusiasts of all types of vintage aircraft. Creeping towards our 60th birthday we have a membership of nearly 400 members who receive a quarterly magazine, regular e-newsletters and invitations to our events.

The last two years have been challenging for a club that thrives on social interaction, but we have enjoyed fly-ins from Breighton to Bodmin and Fenland to Sleap, as well as our local airfield at Turweston. The VAC is a member club of

the LAA and was always known as the vintage 'arm' of the LAA, formerly PFA.

We have had to think 'outside the box' over the last two years and now enjoy presentations from our members through the medium of Zoom during winter months. Among other illustrated talks we have been privileged to hear first-hand accounts of flying vintage aircraft by our members Sir John Allison and Shipping and Airlines at Biggin Hill. Jay Gates talk on Bodmin's unique 'green airfield' status and Rod Arnold, British Antarctic Survey, were also popular presentations.

Our annual Dinner and Awards

Evening for 2021 was at Shuttleworth House and the awards were presented by George Bacon MBE. This was preceded by our 2020 lockdown 'Click and Collect' Awards at Turweston where award winners were invited, in a socially distanced way, to celebrate in style with us in the hangar!

We look forward to meeting up in 2022 at events as listed on our website.

Anne Hughes



Vintage Aircraft Club www.vintageaircraftclub.org.uk





Getting in the groove

We're free to fly - but many of us might need some practice!



ne year ago we were all chomping at the bit to fly, in the midst of a long lockdown period. The main feature of last year's April issue was all about getting 'back into the groove' of flying after an extended period of not being able to practice, stay current and maintain our skills. Lockdown or no lockdown, those same messages should really apply every spring, as the vast majority of us get little flying in over the winter months. I'm a good case study - having flown barely over an hour in the past three months!

It's worth remembering that there are plenty of ways you can get back into flying safety with FLYER Club membership - not least reequipping yourself with supplies from the likes of Pooleys and Transair (which both offer members a generous discount code). If you're

feeling like you need more than that, Ultimate High offers members like you 15% off their Top Gun Experience. What better way to get back into flying than having fun – and doing so over the watchful eye of an experienced instructor. I might have to give Greeners a call...

As you'll know we're running our #FLY2022 campaign, kindly supported by Bose, and with generous offers from the likes of Echelon Air with $\angle 2.022$ worth of Cirrus flying.

If you're Out & About over the coming weeks and months, please don't forget to take photos, maybe even make a video about your adventures, and we'll share them widely. We might even run some #FLY2022 competitions for the best photos and videos.





Out & About

The weather is a bit up and down, but the days are getting longer, and it looks like you've been having fun all around the country – and beyond! Thanks... keep the photos coming!







 $\textbf{Steve-Beq Clark} \ \textbf{Spectacular} \ \textbf{scenery} \ \textbf{over the Hautes-Alpes} \ \textbf{on}$ the way back home from Cannes



Yakupcan Tuna Looking over the Isle of Mull



Andy Archer Low level mist in the Ribble Valley

David Taylor in Uruguay flying out of El Jaguel



Sean McRandle Sunset at Thruxton





Gordon Quinn above the clouds east of Scotland



Ben Wyatt Nice little trip up to Bicester



Ollie Farrant during a fun family sunset flight around the South Downs



Chris Winch topping up before 80 minutes flying around Jersey



Declan Clarke flying from Navan, Ireland



Anthony Crowe found an airship

POOLEYS In association with ndin **ee** [3



If you're a member of The FLYER Club, click here for your personalised vouchers and save over £30 by claiming one FREE landing at each of these airfields valid for April 2022, although not at an aircraft's home field. No jets. Please contact the airfield before setting off.

If you're not currently a member of the FLYER Club, but would like to receive new free landing fees every four weeks plus other Club member benefits, then click here to join!

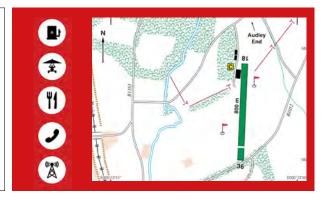
Audley End

01799 510756 | www.vintagefabrics.co.uk

Audley End is an 800m grass strip amid the rolling hills of Essex, just south of Audley End House and Estate. Visiting pilots are very welcome, but PPR by phone is required as it's on the edge of the Stansted CTR. Squawk 7010 and avoid overflying the House or local school. There's always a cup of tea available and plenty of parking. Visitors are welcome to take a look at the aircraft being restored by Vintage Fabrics.

Nearby attractions Audley End House and Gardens, Saffron Waldon is just a mile walk away, with taxis available. PPR 01799 510756

Radio Safetycom 135.480 or Essex Radar 120 625



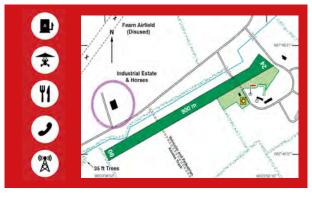
Easter Airfield

07967 715304 | www.easterairfield.co.uk

Easter Airfield is well known among the GA community as being one of the friendliest and most picturesque airfields in Scotland. This reputation makes for a popular destination, which is only 12 miles north of Inverness Airport. Ideally situated as a base for touring the Highlands, with unique accommodation in the old control tower of HMS Owl available next door. Tea and coffee available

Nearby attractions Anta pottery shop, cafe and HMS Owl are just a short walk away. **PPR** 07967 715304

Radio 135.480





Radio Accepts non-radio light aircraft, but PPR



Prior permission is required



Refreshments Including restaurants and cafes etc



Microlights are welcome





Aviation fuel available A avgas, UL UL91, **M** mogas

While you're there

When you visit these airfields, why not show your support by enjoying a meal in the cafe or filling up with fuel? It's good to support GA in the UK.



Free Landings are for FLYER Club member use only - click here to join!

Fenland

01406 540330 | EGCL | www.fenlandairfield.co.uk

Fenland Airfield is located in the Fens of South Lincolnshire and is home to the Fenland Aero Club and Fenland Flying School. The restaurant, Runways, has full service Thursday to Sunday 1000-1600, with a self-service fridge outside those hours. See website for full details. Avgas 100LL and UL91 self-service by card payment. Jet A1 requires advance notification.

Nearby attractions The market towns of Spalding, Holbeach, Peterborough and cathedral, and The Wash.

PPR 01406 540330 Radio 122.930

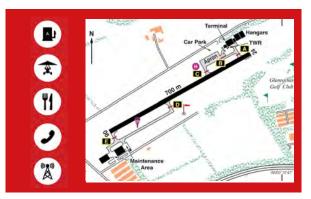


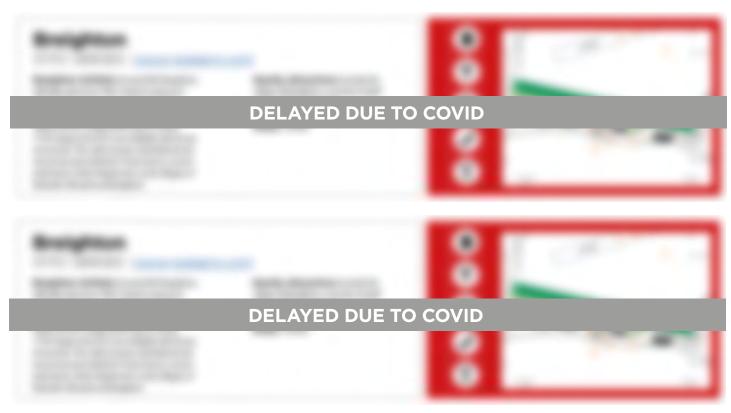
Fife

01592 753792 | EGPJ | www.fifeairport.co.uk

Fife (Glenrothes) is an unlicensed airfield with a hard 700x18m runway for daylight use, with limited overnight hangarage and the Tipsy Nipper bar/restaurant. Fife offers PPL training and trial lessons with experienced instructors. Visiting pilots should obtain a local noise abatement briefing. Fuel available onsite and non-radio aircraft are not accepted. Phone for PPR and to check for local parachute operations **Nearby attractions** The glorious Highlands, with superb walking and climbing possibilities, are only 20 minutes away.

PPR Online at www.fifeairport.co.uk Radio 130.455





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QUESTION: What is the distance between Audley End and Fenland in nautical miles?

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Pooleys April Competition, FLYER magazine, PO Box 4261, Melksham, SN12 9BN or send an email to competitions@seager.aero The closing date is 7 April 2022.

The winner's name and address will be passed to Pooleys, then deleted from Seager's database. Pooleys will send the winner their prize and, in order to do so, also offer to supply them with further information about the company's products and services

The winner for February 2022 is: Andy Torkington, Cheshire.



- Audley End Easter Airfield
- 3 Fenland 4 Fife





Planning for 2022

There's a lot to come this year for *FLYER* Club members. Join now so you don't miss out...

ith a busy 2022 ahead of us we have begun to line up a great collection of speakers to deliver *FLYER* Club webinars to members throughout the year. If you're new to the Club, we generally run them once a month on a week night around 6-7pm and they can last anywhere from one to two hours. They're live and give you the opportunity to ask our experts questions about anything from flying abroad to airframe icing.

They include Dave White, who is great at getting through the regulations and laws surrounding flying abroad, Nigel Webb ('Webbinar', perhaps...?) who can tell you all you need to know about IFR flying, Aerotiques' Darren Lewington will tell us how to win friends when dealing with air traffic control, and Ultimate High's Mark Greenfield, who will talk about upset recovery. Many more will be added!

If you're yet to join the Club, we're approaching a new future, so you can secure your membership now for just £7.50 per quarter. The price will be rising, so don't delay! More information will be revealed very soon...

Join the Club – it makes sense

If you're not a member of The FLYER Club and you're thinking, 'How do I join? Right now. This instant...!'

Well, good news, it's easy. Just *follow this link*, complete the simple form, decide how you want to pay and start enjoying the **benefits** instantly.

Member benefits

- Extensive *FLYER* back issue library
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- £10 off when you spend £40 at Transair (excludes Bose headsets)
- 10% Spitfires.com Simulator sessions

- 15% off an Ultimate High Top Gun Experience
- Free copy of A View from the Hover
- Get your club membership paid by Stein Pilot Insurance
- An initial conversation with Dr Frank Voeten, FAA & EASA AME
- Twice-weekly General Aviation weather briefings
- FREE Landing vouchers, available through the <u>FLYER</u> website
- Exclusive written content from our archives first pieces now published.
- Interviews with experts on a number of key topics.
- Our first members' Fly-in was a success! More events soon!

What do Club members love?

Mell worth the money. Anyone who flies should join. It's worth it just to get Simon's forecasts?

Glt's been keeping me going for the last few months! The Forum and Thursday Livestreams are worth the money alone!

The FREE landing vouchers are probably the main benefit, and cover the cost of membership on their own?

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NEXT MONTH'S ISSUE

Available from 16 May.

QSY

For the funny, the weird, the wonderful and the just plane strange...



Australia's Great Outback Race to go ahead in 2022

Australia is to go ahead with the The Great Outback Race later this year after Covid forced the organisers to cancel it in 2021.

The Race is a time trial through the remote Australian Outback and is usually staged every three years to raise money for the Royal Flying Doctor Service and other Australian charities.

Since it was first staged in 1996 competitors and spectators have raised more than AUS\$3.1m. Funds go towards outfitting RFDS aircraft with essential medical equipment. Each year the 92-year-old Royal Flying Doctor Service helps over 370,000 patients, conducts 18,000 remote clinics and flies over 27 million kilometres.

A total of 43 teams from all over Australia will meet in Darwin for the start of the race on 29 August and spend the next 13 days flying to various locations ending with the finale in Coffs Harbour, 240 miles south of Brisbane, on 11 September.

Participants, including teams such as the Hopeful Hildas and Wacky Warbos, will be flying light aircraft 3,900km to achieve the target of raising \$600,000.

Lottery Office Outback Air Race 2022

Heroes & Villains

HEROES Adam and Charlie Fleury, two married doctors from Devon, have just completed the Talisker Whisky Challenge – rowing across the Atlantic Ocean to raise funds for the Devon Air Ambulance and other charities. The epic 3,000-mile row took 51 days in a 24ft Rannoch boat.

VILLAIN Paramotor pilot Florin Olteanu has been convicted and fined £1,500 plus £1,500 costs for low flying over beaches and premises on Hayling Island. "I'm going to appeal to the highest court," said Mr Olteanu afterwards. "I was flying above the water. I was doing nothing wrong."

HEROES Burt, right below, and Dick Rutan are two of the most famous aircraft designers ever and their home airport in California is to bear their names in the

future - 'Mojave Air and Space Port at Rutan Field'. The Rutans moved to Mojave 50 years ago when it was a small, little known GA airport – and helped transform it.

GOOD SAMARITAN A U-2 pilot, identified only as 'Mai Heatherman', picked up a Mayday call from a civilian pilot whose aircraft had engine trouble over Lake Berryessa, near Sacramento, California and was about to make a forced landing. The pilot in trouble was too low to be picked up on radar or by ground based radio so Heatherman relayed the call. "There is a common bond among all pilots, whether military or civilian," said Heatherman's supervisor. Luckily, the pilot found a field to land in and wasn't hurt, reports Avweb.

Cash help for young flyers

A host of bursaries are available from the Royal Aero Club Trust, offering cash help for flight training. The bursary scheme covers all types of air sports and aviation-related activities. Applicants must hold British Citizenship and be permanently resident in the UK and aged 14-21 years. Advanced Bursaries are available for up to 24 years old. Closing date for applications is 31 March 2022. Apply here



Sam's challenge

Who wants to see a WWII Hawker Typhoon flying again? We all do, but probably no one more than Sam Worthington-Leese who is running 666 miles in 100 days to raise funds for the Hawker Typhoon Preservation Group that he started and runs.

"We work towards creating a living, breathing, working and flying memorial to all who operated the Typhoon during WWII, especially the 666 of those people who made the ultimate sacrifice and have no memorial anywhere in the world," said Sam.

Sam's challenge starts on 27 February and culminates on 6 June 2022. "The anniversary of D-Day and a significant date in the Typhoon's history," said Sam.

Contribute *here*





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