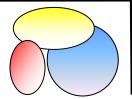




# **Brissle Strutter**



Newsletter of the LAA Bristol Strut

bristolstrut.uk

May/June 2020

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## A letter from our strut chairman —

So here we are, in this strange world, into our second month of lockdown. The CAA has been very busy over the last month, with various Covid extensions to licences, medicals, etc. I've been circulating them directly to you, so won't bother repeating any of it here. However if you need to catch up, look at

https://www.caa.co.uk/Our-work/Newsroom/COVID-19-guidance-for-commercial-and-recreational-aviation/

One of the more recent items gives guidance on maintenance, ferry and engine health flights - under special restricted circumstances. Not all airfields are open, though, so some of us might not be able to conduct such flights or even access our aircraft for preventative maintenance. Exercise patience, and be thankful that we have not been having weather that would speed up deterioration.

#### Permit flights

I have recently seen a note from the LAA to inspectors about the impacts of Covid-19. One bit came as a surprise: "...please do remind owners that we do accept Permit renewal check flights being carried out up to a month prior to their inspector's inspection, and that you have the power, after inspection, to authorise check flights for up to a year after the Permit to Fly has expired." I was aware of the second point but not of the first; I have always assumed that the check flight had to follow the inspection. Not much use at the moment if we're not able to fly at all, but worth bearing in mind for the future.

Trevor

# Contact Information

Strut Chairman:

Trevor Wilcock

01275 858337

e-mail: chairman@bristolstrut.uk

Treasurer/Membership Sec:

Neville Parton

01666 502147

e-mail: treasurer@bristolstrut.uk

Newsletter Editor/distribution:

Mary Leader

01275 541572

e-mail: secretary@bristolstrut.uk

Editorial address:

7 Cantell Grove

Stockwood, Bristol

BS14 8TP

Webmanager

John Leather

Email: webmanager@bristolstrut.uk

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#### Picture Quiz

Graham sent in this photo for the April edition to keep your brain occupied while you are stuck at home— It is a Leduc 022 (France, 1954).

#### A reply from Phil Mathews:

All this ground bound time leads to internet research. I see the picture is of a Leduc 0.22. A failed Mach 2 fighter attempt.

#### And from Alan George:

This month's picture quiz is a Leduc ramjet power research aircraft from France in the 1950s. The Le Bourget catalogue tells me it was the last one that was the prototype for a practical fighter aircraft.

**Pat Harrison** also got it right: *The answer to April's picture quiz is a Leduc 0.22 mach 2 fighter prototype from 1956.* 

#### This Month's question from Trevor

Here's another example of technology then and now. Boeing with NASA have a study on the Subsonic Ultra Green Aircraft Research (SUGAR). One feature of this is a very high aspect ratio wing. High aspect ratio improves aerodynamic efficiency by reducing induced drag, but the large wing span does offer structural problems. The approach to this in SUGAR is a strut-braced wing.



But who was exploring this approach over 70 years ago, and what was this aircraft from the mid '50s? What were the company's most recent aerospace products? Use of the internet allowed.

Suggestions to the editor please—you won't be named and shamed if you get it wrong, but it is interesting to see other possible answers to the question.

Only correct answers will be named and congratulated!

# SKITTLES EVENING, Postponed until Saturday 14th November

We have held occasional Skittles matches against the Bristol Aero Club - unfortunately, all of which we have lost! Now is the chance to reverse our fortunes. We have been looking for a suitable venue, for so long that BAWA have had time to build one!

We have the alley for the evening - a more salubrious venue than any we have used in the past. And there will be a buffet supper to go with it. £5 per head, partners welcomed.

Please put this date in your diary—hopefully by then life will be back to something like normal.



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### CAA ETC UPDATES

A useful safety notice from the CAA: SN-2020/003 Carbon Monoxide Contamination Minimisation & Detection in General Aviation Aircraft

 $\underline{http://publicapps.caa.co.uk/docs/33/20200217SN2020003CarbonMonoxideContaminationMinimisation\&DetectionLocal ContaminationMinimisation and the action of the property of th$ 

#### Chart Legends - IAP text change

The current IAP text paragraph has been changed to "Pilots are strongly recommended to contact aerodrome ATSU before flying within 10nm of any aerodrome marked with instrument approach feathers. Note that the feathers only align with the main instrument runway. There may also be approaches to other runways as well. Detailed IAP information is shown in the UK AIP".

The previous wording recommended calling the ATSU when within 10nm of any part of the feathers.

#### COVID 19 and EASA Aircraft

In case any member flies an EASA aircraft, please see the following:

CAA ORS4 No.1355: COVID-19 Outbreak: Exemption in respect of the requirement to carry the Original EASA

ARC onboard the Aircraft during all flights - <a href="http://publicapps.caa.co.uk/docs/33/ORS4No1355.pdf">http://publicapps.caa.co.uk/docs/33/ORS4No1355.pdf</a>

Though first you've got to be able to fly!

#### Manchester Low Level Route

CAA ORS4 No.1357 details changes to the procedure for VFR flight through the Manchester Low Level Route to alleviate the problem caused by SERA VFR cloudbase/visibility rules being applied in all UK Class D airspace. The changes exempt aircraft in the Manchester LLR from the requirement to have an ATC clearance, subject to specific conditions set down in the document. This now covers Special VFR as well as VFR flight.

http://publicapps.caa.co.uk/docs/33/1357.pdf, also

http://www.nats-uk.ead-it.com/aip/current/misc/BRIEFING SHEET MANCHESTER LOW LEVEL.pdf

#### **US Licences**

In case any of you are flying in the UK on an FAA licence rather than a UK national or EASA licence, please note ORS4 No.1380: <a href="http://publicapps.caa.co.uk/docs/33/1380.pdf">http://publicapps.caa.co.uk/docs/33/1380.pdf</a> which extends private pilot privileges until 20 June 2021. The explanatory note to No. 1380 states "Whilst the BASA with the USA remains under negotiation, the use of the derogation enables FAA pilot licence holders permanently residing in the UK and wishing to exercise private licence privileges to continue to operate in UK airspace...." Please see the document for the conditions which apply to this derogation.

#### CAP1913

The CAA has just issued CAP1913, which is a welcome plain English guide to the recent batch of Covid-19 ORSs. <a href="http://publicapps.caa.co.uk/docs/33/CAP%201913%20Exemption%20Guidance.pdf">http://publicapps.caa.co.uk/docs/33/CAP%201913%20Exemption%20Guidance.pdf</a>

#### COVID 19 - Changes to MET forecasts

The Met Office is currently prioritising activities so that it can continue to carry out urgent governmental work. To support the Met Office and in light of current restrictions on General Aviation, the CAA has sanctioned changes including:

A suspension of GAMETs, Gatwick Take Off Forecasts, and aerodrome warnings for General Aviation airfields, and 9 hour TAFs produced every 6 hours instead of every 3 hours.

CAA will keep these temporary changes under review and will advise the Met Office when to resume normal services.

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# Back to Basics by Graham Clark

We return to our series of articles from which we all hope to learn something useful from Pilot X. Many thanks to Graham for these thoughtful insights. They are reprinted with very kind permission from Flyer Magazine

Pilot X had come to aviation a bit later in life and had gained most of his 102 hours during flight training on a PA 28, but he also had some experience on the 152, 172, 182 and a Mooney M20J. He had always had his eye on a type that he could use in conjunction with his business, and to this end seven years after completing his training, he had acquired a Beech F 35 Bonanza. He reckoned that his experience on the Mooney – which after all is a complex type for a freshly-minted private Pilot, with constant speed prop and retract gear – would prepare him nicely for the Beech.

When X first saw the ad for the Beech he at once thought that it would be the ideal machine for his purposes: enough room for the family, plenty of range with additional tip tanks, and a good cruise speed for getting around Europe without excessive delay. The plan was to get some experience on the machine and after he felt totally comfortable, go for an Instrument Rating, for which the machine was well equipped.

In addition to the two 17 gallon main tanks, the Beech also came equipped with two 10-gallon supplementary tanks and two 20-gallon tip tanks, bringing the usable fuel capacity to 94 gallons.

With this in mind, after a couple of self-familiarisation flights he set off from his home base for a flight of about 200 miles north to the flatlands in good VFR conditions. He liked the Beech; it had a solid feel to the stability and control, and encouraged confidence. It absorbed the rough air bumps much better than the lighter types he had flown. The flight north went well, and he was easily able to pick out the major terrestrial features that were more easily interpreted than the instruments on the panel. In terms of their complexity, the engine, fuel management and navigation demands on his piloting skills were significantly greater than those of the aircraft on which he had gained his first one hundred hours before buying the Beech, in which everything happened much faster.

The flatlands destination was easily found and the aircraft parked for the night. X felt pleased with himself and checked into his nearby hotel in preparation for a morning meeting.

After the breakfast business meeting the following morning, X got out his charts and worked out a return route south to his home base. Choosing a couple of alternates, he naturally checked Notams and in particular the weather forecast, because the route south would unavoidably require him to negotiate some high ground. He interpreted the forecast as 'difficult' but not 'impossible'.

Taking off into a VFR sky, X proceeded south; but he had not gone more than 50 nautical miles when he correctly divined that the lowering clouds over the high ground to the south were more than he as a VFR pilot wished to face. It was an easy decision to turn back and land at another airfield and wait for the muck to clear. A nuisance, but it couldn't be helped.

A few miles short of his first alternate towards the north, he called them on the radio for the weather and did not like what he was told; the muck from the west was about to blanket the alternate. X determined he had better divert to the second alternate, further east.

By this time, X was feeling a bit flustered: there had been too many changes to the flight and everything was happening very fast: new frequencies; fast chatter on the radio from the tower and other aircraft; an unfamiliar airfield; nasty crosswind on Runway 10, the only one available. Still, soon his wheels would be on terra firma and he would be able to emerge from a hot, busy cockpit and grab a calming breath of fresh air and a cup of coffee.

Placing the aircraft in the downwind leg to Runway 10, X could only think of one thing: to get this aircraft on the ground. He lowered the gear and turned onto base leg, then onto the final approach. X brought the Beech to within 10 ft of the asphalt, but the crosswind was gusting badly and threatened to cause a bad landing. Remembering the advice from his training to 'throw away an unstable approach', he firewalled the throttle.

The 225 hp Continental C225-8 responded with the splutter of fuel starvation, but X was too committed to a landing and busy flying the aeroplane to realise what was happening as the Beech rose slowly over the far threshold. X only had time to call 'Mayday' twice, before the Bonanza then stalled nose-down into a thicket of trees, fifty yards short of a market garden. The rescue workers extracted him from the wreck, with severe injuries caused by the impact of his head and shoulders with the instrument panel. The shoulder harness had not been worn.

The Bonanza Pilot's Operating Handbook specifies that during the approach and landing, fuel should be drawn from the fullest of the two main tanks. During the investigation, it was determined that using a computer, X had calculated the flight time as 1 hr 27 minutes, and fuel consumption as 19.8 gallons. His Flight Plan declared the maximum endurance as two hours. After the landing, the four-point fuel selector lever was found pointing to the mark: "Auxiliary Fuel 20 Gal Level Flight Only Use Second".

At the time of the accident, his total time on the Beech was 4 hr 10 minutes; with four take-offs and three landings... He died from his injuries.

- 1 What was X's first mistake?
- 2 What was X's second mistake?
- 3 What was X's third mistake?

Answers at the bottom of the last page of this newsletter.

#### LAA COURSES

In light of the current situation obviously all courses are withheld for the foreseeable future. When 'normal service is resumed' please check the LAA website: <a href="http://www.lightaircraftassociation.co.uk/Courses/courses.html">http://www.lightaircraftassociation.co.uk/Courses/courses.html</a> to see any courses which may be running. This newsletter only usually comes out monthly and often it's too late to follow any link as by then they are fully booked.

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#### A LETTER FROM THE CEO

All of you will have received a letter from Steve Slater on 17th April giving an update on the situation as it was then. The letter is too long to reproduce here—if you didn't get it let Mary know and she can send it on to you.

#### **ENGINE PRESERVATION DURING COVID-19**

You have probably seen references in material from the LAA to TCM and Lycoming procedures for engine layup. TCM have now issued a Service Bulletin SB20-03 <a href="http://www.tcmlink.com/pdf2/SB20-03.pdf">http://www.tcmlink.com/pdf2/SB20-03.pdf</a> because people have not been able to follow their defined procedure for layup, either because lockdown restrictions have prevented conducting the 1 hour flight specified or because the specified cylinder preservation oil is currently in short supply. The SB gives an exemption for both. It however only relates to the procedure for long-term layup (greater than 90 days), so may not be of immediate relevance. Curiously it does not mention the procedure for temporary storage (30-90 days) which also involves the 1 hour flight and preservation oil.

# Where to go?

Should there be any lift of the restrictions here's what Flyer Magazine have to offer: for June:

Audley End, Crosland Moor, Eshott, Fife, Peterborough Sibson, Sherburn-in-Elmet.

#### **FLYER MAGAZINE**

Please note that Flyer magazine is going digital from the next issue. See:

https://www.flyer.co.uk/flyer-magazine-to-go-digital-and-launch-the-flyer-club/;

you can sign up for your free access to digital Flyer mag! What's more, it will be free to all who sign up to receive it – wherever you are in the world.

**Yes, FREE,** and you can sign up right now to receive the next issue and others that follow. To register click on the link above or go to the Flyer Website and click on the NEWS tab.

#### **FRENCH CHARTS**

Well. here's a bonus fallout from Covid-19. We may not be able to fly at the moment (apart from our 4-weekly maintenance flight where appropriate) but we can plan. And the French SIA has been unable to print its 2020 charts before the expiry dates of the 2019 charts. They are therefore offered on-line - FREE! - at <a href="https://www.sia.aviation-civile.gouv.fr/produits-numeriques-en-libre-disposition/cartes-sia.html">https://www.sia.aviation-civile.gouv.fr/produits-numeriques-en-libre-disposition/cartes-sia.html</a>

### AND NOW FOR SOMETHING REFRESHING!

#### Weather decision-making for GA

You may be interested in this seminar at the Met Office, Exeter to be held on 23rd September 2020:

https://www.gasco.org.uk/flight-safety-information/seminars/weather-decision-making.

Note that places are limited.

#### **PILOT X ANSWERS**

- 1. To fly a complex aircraft well beyond his experience without first having a full briefing from an instructor.
- 2 X failed to conduct full standard downwind checks: Brakes OFF, Undercarriage DOWN, Mixture RICH, Pitch FINE, Fuel ON, Hatches CLOSED, Harness SECURE.
- 3 When the engine failed, he should have put the nose down to maintain flying speed, and land straight ahead.

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