



Keith Thompson, obviously the long-lost twin brother of BMAA licensing genius Aaron Bliss, after passing his GST at Newtownards

▷ For some unfathomable reason, he has become immensely popular among other pilots at Newtownards, almost exclusively Rotax and Jabiru owners.

On 6 May, he successfully completed his GST at Newtownards in the school Thruster, and has already been headhunted by Dimitar Ivanov as a partner in his Thruster – which coincidentally is approaching overhaul hours.

Ken Crompton
CFI, Northern Ireland Microlights

Push it out...

DEAR EDITOR

After reading Brendan Digney's article on fuelling, this is a very simple and effective tool: a 90° bent tube nipple from an inner tube is welded onto a filler spout for the jerrycan.

A hand or foot pump attached will pressurise the can and transfer the fuel. Be careful however: a pump can generate enough pressure to burst a jerrycan, and only a little is needed to empty!

Derek Lamb

...or pull it out

DEAR EDITOR

I read with interest Brendan Digney's article on refuelling, and you may be interested in the solution I came up with to refuel my C42.

The pump is a Commercial Fuel Solutions 114000-5 HP100 which delivers up to 110 l/min! The flow meter is a Bell Flow Systems MG80V, and the filter is a Cim-Tek 400-10 which filters to 10µm.

Paul Ellis



Derek's simple system in action



Simple is best, says Derek Lamb



Paul Ellis' flow meter



Paul Ellis' fuelling system delivers up to 110 l/min

Editor lazy, shock photo reveals

DEAR EDITOR

After I'd flown into Popham in my Skyranger, I spotted you waiting patiently to expand your horizons outside the BMAA trailer, and thought it was worth a photo.

Best regards, Simon Stoodley ☐



The editor thinking deeply about life, the universe and where his next pint of Old Sparrowfart is coming from, spotted by Simon Stoodley at Popham



SAFETY

Watch this space

Airspace, that is. As Chloe Eriksen says, infringements are on the rise, although we're holding steady

INFRINGEMENTS rose last year, and the trend is going the same way for 2023.

Having said that, the proportion attributed to microlights has remained steady, which is good, but we mustn't be complacent.

With an increasingly complex and congested sky to navigate, we need to work hard to reduce that number. So how can we reduce the incidences of airspace infringements?

I received a query recently which described a scenario where a pilot under training nearly infringed controlled airspace, and had it not been for the quick actions of the instructor. It might have ended up as another strike on the CAA stats.

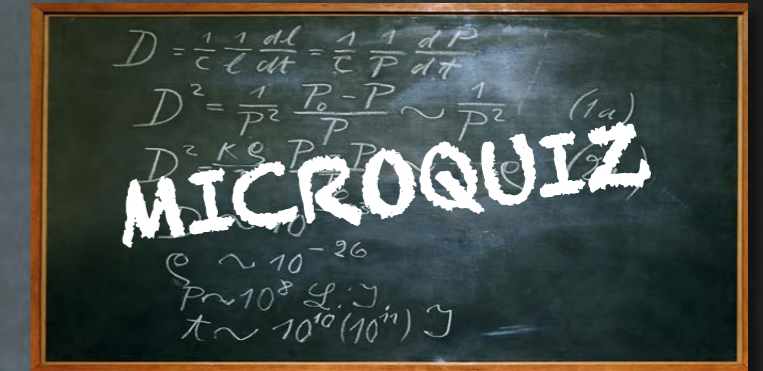
"When having a lesson last week, weather conditions were such that there was an updraft that quickly took us very close to, but not into, controlled airspace. Fortunately, my excellent instructor was on top of this, but I didn't 'feel' anything. Can you advise - is there any equipment on the market that would give me an alert when close to airspace to avoid an infringement, please?"

The pilot in question and I began to examine this together and consider the ways in which we can all try and avoid airspace infringements, as well as looking at the various gadgets that could help in this type of situation.

CAA ASI webpage

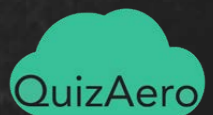
We began by looking at the Airspace & Safety Initiative webpage from the CAA, <https://airspacesafety.com/>, as it provides a whole host of information on infringement occurrences and how to avoid them.

In the resources section of this webpage, you ▷



- Which of the following statements about the Bernoulli principle is correct?
 - It states that the static pressure of a fluid decreases as its velocity increases.
 - It states that the static pressure of a fluid increases as its velocity increases.
 - It states that the static pressure of a fluid is constant regardless of its velocity.
- What is the difference between parasitic drag and induced drag?
 - Parasitic drag is caused by the shape of the aircraft, while induced drag is caused by the production of lift.
 - Parasitic drag is caused by the production of lift, while induced drag is caused by the shape of the aircraft.
 - There is no difference between parasitic drag and induced drag.
- Which of the following statements about ground effect is true?
 - It increases the lift and drag of an aircraft when flying close to the ground.
 - It increases the lift and decreases the drag of an aircraft when flying close to the ground.
 - It has no effect on the lift and drag of an aircraft when flying close to the ground.
- What is a cold front?
 - A cold front is a boundary where a cold air mass is replacing a warm air mass.
 - A cold front is a boundary where a warm air mass is replacing a cold air mass.
 - A cold front is a type of boundary that is associated with clear skies and calm winds.
- What is the relationship between parasitic drag and speed?
 - Parasitic drag increases with speed.
 - Parasitic drag decreases with speed.
 - Parasitic drag is not affected by speed.

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



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



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

MICROQUIZ answers

- 1a It states that the static pressure of a fluid decreases as its velocity increases.
- 2a Parasitic drag is caused by the shape of the aircraft, while induced drag is caused by the production of lift.
- 3b It increases the lift and decreases the drag of an aircraft when flying close to the ground.
- 4a A cold front is a boundary where a cold air mass is replacing a warm air mass.
- 5a Parasitic drag increases with speed.

▷ can find “Avoiding airspace infringements – CAP1840”, which has some excellent advice on how one can increase capacity and situational awareness through thorough planning and preparation. When operating in close proximity to controlled airspace it is also worth re-



If inexperienced, plan ahead

membering the Take 2 rule, the graphic is shown below as a reminder.

I know that many microlight pilots will operate with a larger margin than this, to cope with any unforeseen up- or downdrafts which could adversely affect lighter aircraft.

Planning

In this particular scenario, it would be fair to assume that the instructor’s experience played a significant part in avoiding an infringement.

A good working knowledge of the airspace in which we are operating almost certainly means that we are less likely to accidentally infringe controlled airspace. This could be knowledge accrued through experience or by thorough route planning and preflight preparation.

In the absence of extensive experience, planning will be essential. A study conducted by a sub-group of the Airspace Infringement Working Group on infringement data from 2019 established

that over half of all infringements cited poor planning as a contributory factor.

A detailed plan with good route study and appreciation of the likely airspace hazards, paying particular attention to the vertical parameters of nearby airspace, can help to avoid an infringement.

The full report can be found on the Airspace & Safety Initiative webpage.

Cockpit management

Returning once again to the near-miss infringement scenario, the cat-like reactions of the instructor impressed the student, but they were concerned that they didn’t “feel” anything.

While this could once again be attributed to experience, and I’m fairly sure it was in part, I believe that good cockpit management and situational awareness would also have been key here.

A good aviator maintains an efficient scan of the instruments while also ensuring maximum time with eyes out of the cockpit.

It is reference to these instruments, such as a VSI, and the external visual cues, that will alert us to a change in aircraft configuration that may require our attention.

When training, it can be exhausting trying to remember everything and to navigate, aviate and communicate effectively, but this will improve with time and practice.

REMEMBER: TAKE 2

Plan to stay at least **2nm** from the edge of Controlled Airspace

Plan to stay at least **200 ft** above or below Controlled Airspace

Think, plan, avoid and enjoy your flight

TAKE 2

Don't infringe Controlled Airspace
Give yourself a safety margin
www.airspacesafety.com

Produced by the Solent Local Airspace Infringement Team

SGU NATS

Know your kit

Part of our instrument scan could be a moving map, and this can be a valuable piece of equipment, but only if managed correctly and used properly. Get to know your equipment, understand the settings and interface, and practise this on the ground.

Many infringements occur despite the presence of a moving map. This could be because warnings are not correctly interpreted, not heard due to distraction, or simply not turned on.

It’s also worth mentioning how important it is to keep this aid updated and always have some sort of backup in the event of failure.

Weather appreciation

The weather can be impossible to predict, even for those who do it professionally, so as aviators we need to be able to update our plan in response to a change in weather conditions.

The instructor in this example reacted quickly to an unanticipated updraft. Applying the Take 2 rule will also help to build in a margin should this type of unexpected wind conditions disrupt your track or altitude.



No one deliberately infringes

CAA resources

The CAA has hot-spot narratives which focus on infringement avoidance in particular areas within the UK.

On its Airspace & Safety Initiative webpage, and new from February of this year, it’s published one such guide from the Midlands Lower Airspace Infringement team for the Birmingham control area, which provides detailed advice when planning a flight in the vicinity of Coventry Airport.

It focuses on the threats and likely errors that could be encountered, and is well worth a read if you are planning a flight in this area. The same webpage also lists guides for the London CTR and the Manchester Low level route, among others.

Be prepared

My pointers here are not exhaustive, and the resources are plentiful, so I encourage you to explore the ASI webpage.

Infringements are inadvertent. No one deliberately infringes, or at least I hope they don’t, and we can reduce the chances of this happening with thorough preparation.

Detailed planning, threat and error management, weather appreciation and effective cockpit management will all help to reduce the incidences.

Examine your own practices and see if you could reduce the likelihood of an infringement.

GASCo

GASCo’s Airspace Infringement Avoidance monthly webinars cover all of the above points and more. Register online for free at <https://www.gasco.org.uk/>.

And finally...

If you have a flight safety query or would like to share a story of your own flying that could help others, please do get in touch with me at safety@bmaa.org.

Safe flying!

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