AIRPROX

UK AIRPROX BOARD

THE PUBLICATION OF THE UK'S AIRPROX BOARD 2025

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Welcome

UK Airprox Board 2025 digest

Welcome to this year's annual Airprox magazine. Last year, 2024, was a bumper year for Airprox reporting with a total of 209 aircraft-to-aircraft incidents being reported to the UK Airprox Board. While this is the highest-ever total of reported aircraft-to-aircraft Airprox, it's hard to say why we're seeing this increase.

As with many things safety-related, it's very difficult to prove that initiatives are having an effect, or whether they are having the desired effect. This is because if safety is successful, then nothing 'bad' happens, but who is to say that anything 'bad' would have happened anyway?

Whether the increase in numbers is an indication that our skies are becoming more crowded, or simply that there is more awareness of the Airprox process – particularly among General Aviation pilots – and we are receiving more incidents that would previously have gone unreported, are just two possible explanations.

There's no doubt in my mind, though, that the proliferation of electronic conspicuity equipment in General Aviation over recent years has aided pilots in the detection of proximate traffic and has probably led to reports of Airprox events that would previously have gone unreported (because the pilots involved would not have known that there had been another aircraft nearby).

However, I would also like to think that the various aviation sectors we deal with trust our processes and output, and that there is a true willingness to learn from events such as Airprox for the benefit of everyone.

As with last year's magazine, a combination of a few of the interesting monthly Insight newsletters that we published throughout 2024 is included in this issue.

Although I haven't included any statistics this year, that doesn't mean they're not available, so if data, statistics and analysis are what gets you out of bed in the morning, then there's plenty of that available on the UKAB website. Do go and have a look, you might be surprised at what you find.

SIMON OLDFIELD
Director UKAB

Cover Image: Thierry Weber (Shutterstock)

So, you've had an Airprox...

Ever wondered how the reporting process works and your part in it? Here's what you need to know

Simon Oldfield, Director UKAB

In my job I'm often asked *'How does the Airprox process actually work'* and *'Will I get into trouble?'* The answers to both of those are *'It's pretty straightforward'* and *'No you won't from us'*.

So I thought it might be timely to lay out what we do, how we do it, who we share information with (you might be surprised…) and what the participants (primarily pilots and controllers/FISOs/AGOs) can expect.

First off, I think it's important to set out the whole context of Airproxes in the UK.

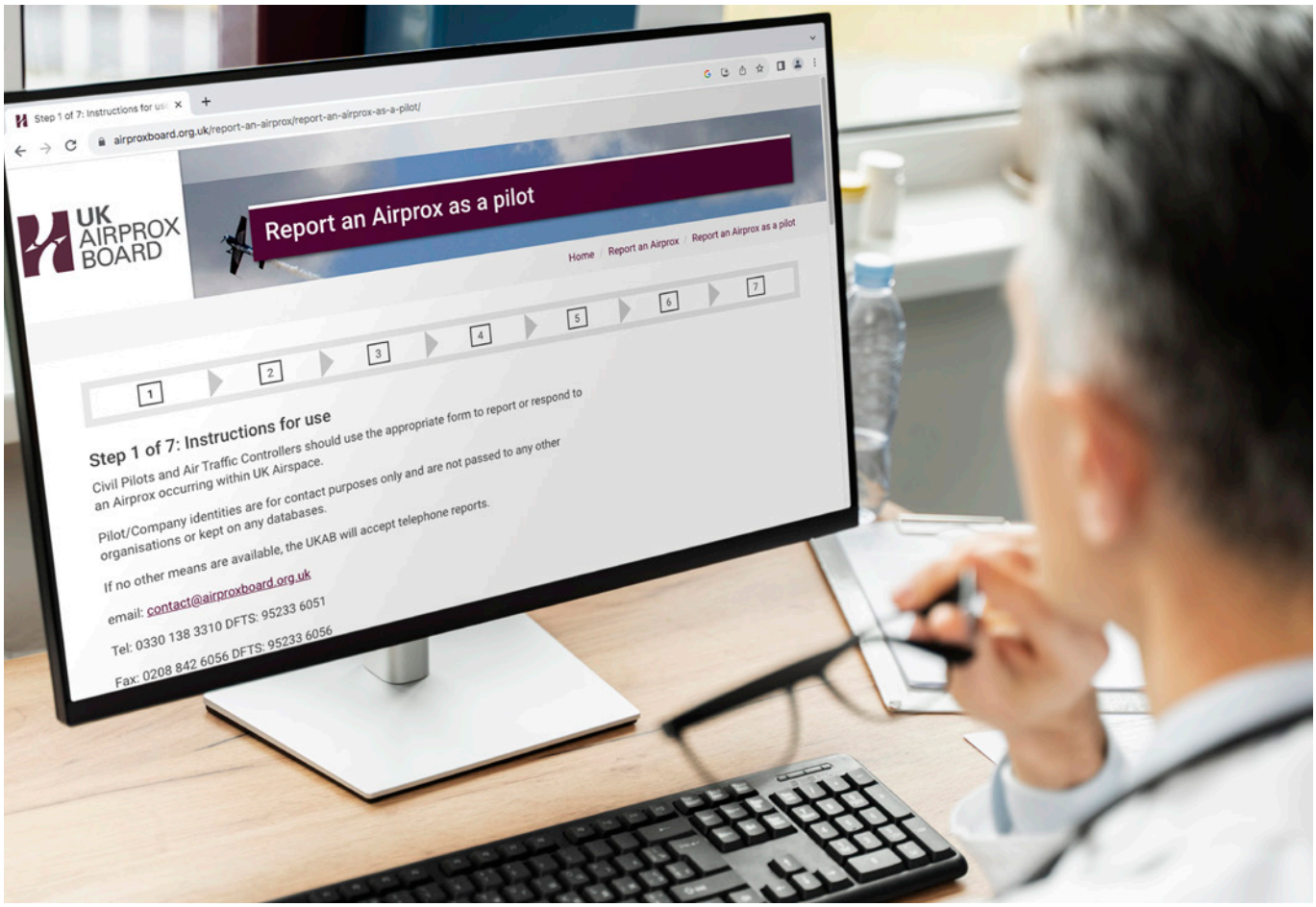
The UK Airprox Board was first established in its current form way back in November 1998, and it's responsible for the analysis and assessment of all Airprox reported within UK airspace (including any airspace ceded to the UK under international agreements) as part of the UK's obligations under the Chicago Convention.

The organisation is jointly and equally funded by the Civil Aviation Authority (CAA) and the Military Aviation Authority (MAA). Before 1998, the work we conduct today was carried out by separate civilian and military organisations so, given that there are plenty of Airprox that involve both military and civilian elements, it made sense that a single organisation was charged with looking into such events.

The UKAB exists purely to contribute to the enhancement of flight safety in the UK – there's no 'hidden agenda' whereby one or both of the Regulators seek to punish those involved. Indeed, if there's any kind of enforcement action being taken in parallel to the Airprox process (if, for example, the Airprox was a result of an airspace incursion) the UKAB **does not and will not** share any information provided to it with those investigating any possible breach of the regulations. Pilots and controllers/FISOs etc who provide a report to the UKAB can be assured that their report will only be shared with those with a legitimate safety interest in the Airprox event.

So, how does one report an Airprox? Well, before we get into that, I should probably talk about who can report an Airprox and who can't. The definition of an Airprox comes from ICAO DOC 4444: PANS-ATM and is worded as follows:

'An Airprox is a situation in which, in the opinion of a pilot or air traffic services personnel, the distance between aircraft as well as their relative



Occurrence reported to UKAB (ensure included in DASOR distribution).

Other party traced (if necessary – it usually is).

Reports requested from all involved (pilots and controllers/Supervisors).

Radar recordings used to establish 'what' happened.

- Essential that recorded data is retained
- Think about unit radar, radio recordings, HUD tapes, mission recordings and GPS track logs from the aircraft.

positions and speed have been such that the safety of the aircraft involved may have been compromised.'

This means that a pilot or controller/FISO/AGO can report an Airprox, but a member of the public cannot. That said, here at the UKAB we will accept reports from ground personnel involved in the flying operation, such as glider winch operators or supervisors, but we won't take a passer-by's observation that "two aircraft got really close on approach to airfield xxx". It's also worth remembering that the definition of an Airprox is based on opinion, so if you are approached by my team asking for a report because you have been identified as the pilot/controller/FISO etc of the 'other aircraft' in a report of an Airprox, then it has already been classified as an Airprox, irrespective of whether or not you agree, **but we are not seeking to apportion blame.**

So, moving on to how to report an Airprox, our preferred method is **first reports** being made through the UKAB website (Report an Airprox) or App (yes, we have an App!). This keeps the physical paperwork to a minimum and allows everything to be stored and tracked electronically – don't worry, when you submit a report through these means you'll get an automated email reply with a full copy of what you have reported for your own records. Once the report is received, we go to work.

We start by tracing the pilot of the other aircraft. Sometimes the details of the other aircraft are given to us by the reporting pilot (or controller) but, if that isn't the case, then we use a number of methods to try to find out what the other aircraft was and who was flying it at the time.

Primarily, we use radar replay software that has been kindly provided to us by NATS Ltd (the main, but not only, provider of air navigation services in the UK) but there are areas of the country where the NATS radar coverage at lower levels – where most Airprox occur – can be a bit of a lottery, so we also have access to an ADS-B tracking tool provided by the CAA and, of course, publicly available flight tracking applications such as FlightRadar24, ADS-B Exchange etc.

In cases where aircraft are not carrying transponders or electronic conspicuity devices (such as FLARM, SkyEcho, PilotAware etc), we have other methods that we can employ to try to trace an aircraft, but these are far less likely to yield a positive identification (so an occasional Airprox report will show the other aircraft as 'untraced').

Once we have identified the other aircraft, we write to the registered owner with the reported details of the event (date, time, place etc) and ask for contact details for the pilot flying the aircraft at the time. We'll then contact that pilot and ask them to complete a report form with their recollection of the event.

Occasionally, the pilot of the other aircraft won't recall anything specific about the event; this could be for a number of reasons, for example they didn't see the reporting aircraft, or they did see it but didn't think that it was worthy of reporting; this is perfectly acceptable – we want to know what the pilot recalls and why they did what they did (or didn't do) because it all helps to build the Board members' understanding of the event.

As part of the pilots' reports, we ask for the details of which agency they were talking to at the time, if indeed there was one. This is so we can then approach the unit (for example, Farnborough LARS, Barton Information, Perth Radio etc) and ask for reports from any controller's, FISOs or AGOs associated with the event.

Once again, it may be that they don't recall anything specific about the event but, nonetheless, that is also information that's useful to the Board. It's at this point that I issue a plea to all pilots – it's really important that an Airprox is declared on the frequency in use at the time. This is so that the parties involved are in no doubt that there has been an Airprox, and then certain actions can be taken, such as saving the recordings of the RT and the radar, and completing an initial report while it's still fresh in the memory.

All too often we approach controllers and the like for reports, and they know nothing of the Airprox until we tell them. It's sufficient to simply state "Airprox" on the radio, with your callsign, for this set of pre-determined actions to be taken. If, however, you don't know at the time whether the event is worth reporting, but decide afterwards on the ground (perhaps after chatting it through with friends and colleagues) that you'd like to submit a report, then do consider also informing the agency you were talking to at the time so that they can preserve any RT and radar recordings. Units are required to hold recordings of their RT for a minimum of 30 days, and many overwrite the data after the 30 days has elapsed, so time is of the essence if we are going to be able to secure this vital part of the information we want.

Once we have reports from all those involved, my team of Inspectors gets to work on preparing a single report for the whole event that will be presented to the Board; we call this element of the report the Part A. This comprises all the information we have gleaned from the reports of those involved and any recorded data we have managed to obtain; the Inspectors DO NOT conduct an investigation into the event, although they may seek supplementary information from those involved.

'The Inspectors DO NOT conduct an investigation into the event'

- UKAB Inspector compiles a single report for the Board.
- Pre-Board process includes provision of comment from HQ Air Command/JAC/Navy Command.
- Report discussed at the monthly Board meeting – Risk classification and Contributory Factors (CFs) assigned.
- Inspectors complete the report with the record of the Board's discussions, Risk and CFs.
- Report distributed to those involved for factual error checking. Must be completed within 8 working days.
- Report finalised and published ~1 month after the Board meeting at which it was read.

One week prior to the Board meeting, my team and I will go through each and every report scheduled to be read that month to ensure that it is fully ready to be presented and assessed by Board members. As part of this process, we'll often invite comment on the event from a number of stakeholder groups.

While we can't invite all of these groups to comment on all of the reports involving an aircraft from the sector they represent because that would introduce lengthier delays, we do try to include those areas that see a lot of their aircraft involved in Airprox events.

Once all reports have been through this pre-Board process, they are then amalgamated into a single agenda and sent out to Board members ready for the meeting the following week. The next step is the most important step of all – the Board meeting where the reports are discussed, assessed and Contributory Factors and Risk Classification assigned.

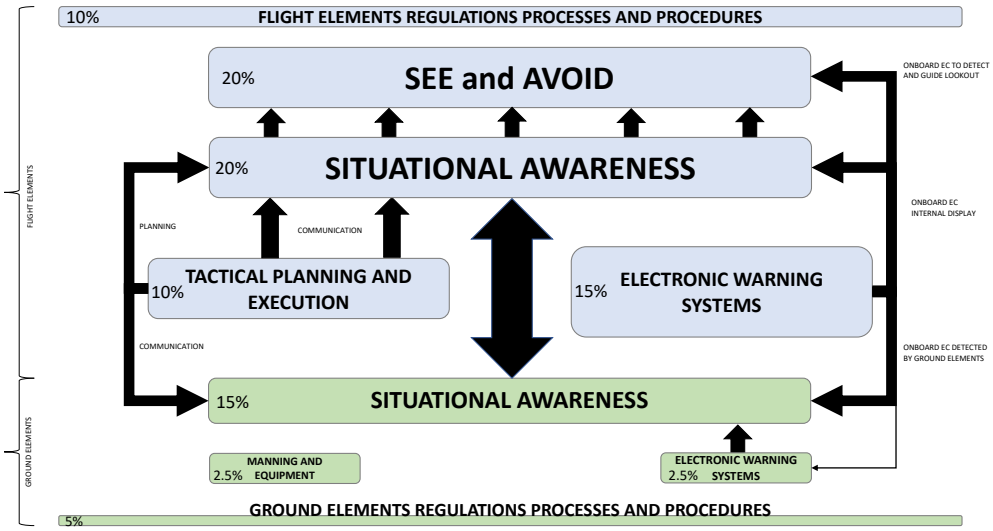
Each report is presented to the Board by the Inspector that has prepared it – because all Board members will have received the agenda a few days in advance, this is just a quick précis of the event to remind them of when, where and what. Then it's over to the room to discuss the event.

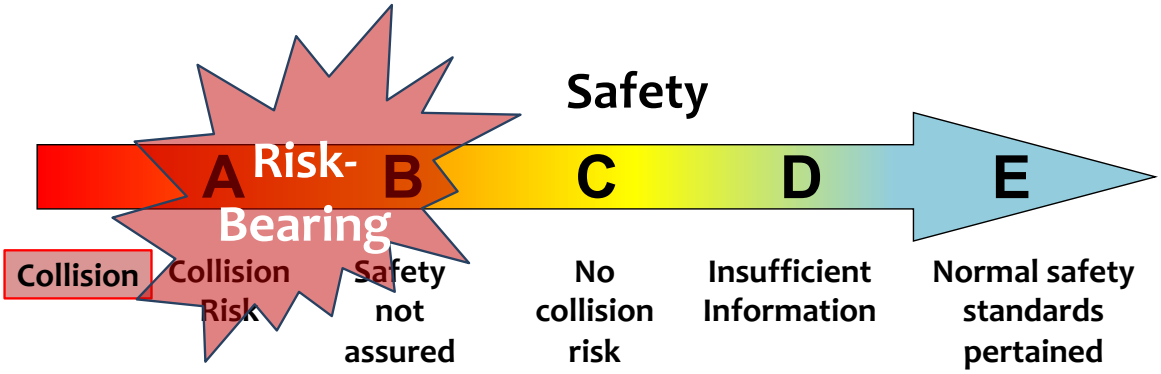
The Board consists of 16 voting members and a number of non-voting advisors. Members are drawn from across the aviation spectrum and their participation is entirely voluntary. Currently, we have Board members who have a vast amount of experience in almost all of the areas that are involved in Airprox – pilots of large and small commercial aircraft, helicopters, light-aircraft, gliders, paragliders and military aircraft (fixed-wing and rotary-wing).

There are also air traffic controllers from civilian and military disciplines, from those who control at aerodromes to those that control in large centres such as Swanwick and Prestwick. The advisors to the Board come from equally varied backgrounds and include representatives from the civil and military regulators, military headquarters and one advisor that represents the interests of the USAF bases in the UK.

All of the members and advisors are welcome to contribute to the discussion of the reports – not just those that involve their particular area of interest. Indeed, many of the members are multi-disciplinary – we have air traffic controllers that fly, pilots that are also controllers or FISOs, airline pilots that fly GA aircraft, GA pilots that fly commercial aircraft etc., so the experience that all these people bring to the process is invaluable.

At the end of the discussion of each case, the Board agrees on the factors





that contributed to the Airprox (CFs), the performance of the safety barriers, and assigns a risk category.

There's usually broad agreement on the contributory factors, and some further discussion can be needed to clarify, but often there can be a difference of opinion on the level of risk of collision involved.

'It's an opportunity to check that we have got all the facts right'

In those cases where there is an obvious split of opinion, the Chair of the meeting (me) will put it to a vote of the members. Because advisors are not permitted to vote, this can, in some cases, result in an even number of votes for one of two risk categories; in these cases, the Chair has the casting vote, but I have to say that those occasions are extremely rare.

The final part of the process is for the Inspector assigned to the case to write an account of the Board's discussions in Part B of the report, complete the Part C with the assessment of safety barrier performance, assigned contributory factors and the risk classification, and then send the report to its contributors (pilots, controllers/FISOs/AGOs and investigators) for factual error checking.

This is an opportunity for us to check that we have got the facts right and that the information provided to the Board is as accurate as it can be. If any big discrepancies are discovered, it can result in a re-write and re-presentation of the entire case to the Board at a subsequent meeting, but it's also extremely rare that this happens. About a month after the Board has assessed the Airprox, it's then posted to the UKAB website for all to see and, hopefully, learn from.

Finally, I want to reiterate why we do what we do. As I said at the beginning, the sole purpose of the UK Airprox Board is to contribute to the enhancement of flight safety in the UK. More specifically, it is about reducing the likelihood of a mid-air collision occurring in UK airspace. Sadly, this type of event does still happen, but if we can address some of the factors that lead to a reduction in safe separation between aircraft, but stop short of an actual collision, then we should be able to reduce the numbers of those tragic events.

So, what else can we do?

Photo for illustrative purposes : Johann Kirby Datoy

Navigating in Class G airspace – is it all just about see and avoid?

While it's true that a lot of Class G airspace activity relies heavily on pilots looking out for other aircraft to keep a safe distance from them, that's just a part of the whole picture of the defence against mid-air collision. As I have highlighted in other Insight newsletters, decisions taken both before take-off and while airborne can influence our likelihood of an encounter with another aircraft and, potentially, increase our chances of avoiding an Airprox.

The Airprox I have chosen this month is **Airprox 2023167**, which involved an AgustaWestland AW109 and a Diamond DA40 in the vicinity of the Compton (CPT) VOR/DME beacon. The AW109 pilot was conducting instrument flying (IF) training (under IFR) and had just passed the CPT beacon. They were flying at an altitude of around 3000ft heading away from the beacon on a track of about 200°. The AW109 instructor was conducting the lookout because the student was wearing IF goggles, restricting the ability to use visual references.

The DA40 pilot was flying under VFR, tracking towards the same beacon but in the opposite direction to the AW109 and at a similar altitude to the helicopter. Both pilots were in the process of getting an Air Traffic Service at the time of the Airprox – the AW109 pilot had called Farnborough LARS but, unfortunately, had not yet agreed a level of service; the DA40 pilot was in exactly the same position with Oxford Radar. This meant that neither pilot had any clue that the other aircraft was there and so were relying entirely on their respective lookout scans.

In the event, the DA40 pilot spotted the helicopter just in time to take avoiding action; the AW109 instructor only saw the DA40 as it passed them, too late to have done anything to increase the separation between the two aircraft.

It's often the case that at least one of the pilots involved in an Airprox either sees the other aircraft late and just manages to take avoiding action, or doesn't see it in time to do anything at all. We all know that looking out is no guarantee that we will see all the other aircraft close to us, for reasons too numerous to mention here, so how can we mitigate the inherent weaknesses of lookout?

Well, what about considering the altitude we are flying at? Clearly, there are a number of factors to consider when selecting a cruising altitude – the proximity of controlled airspace above or below (think about the GASCo 'Take2' advice), and the prevailing weather and terrain clearance to name but a few.

However, after considering these other factors, if there is still a bit of room to play with then it's worth asking ourselves whether we can build-in some vertical separation from traffic coming the other way. The semicircular rule (used by aircraft flying under IFR above transition altitude) is a good example of a procedure whereby vertical separation is incorporated into the plan.

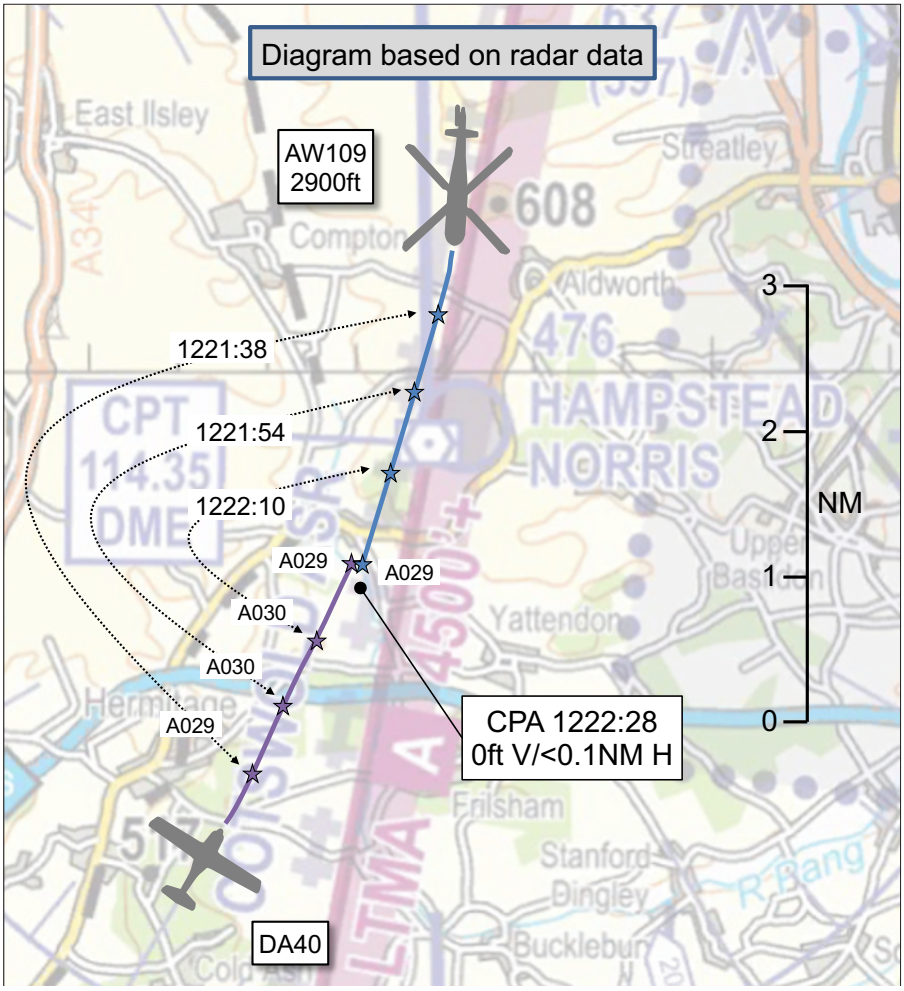
In a nutshell, pilots flying in an easterly direction (headings of 360° to 179°) select an odd altitude (3000ft, 5000ft etc) and pilots flying westerly (headings of 180°

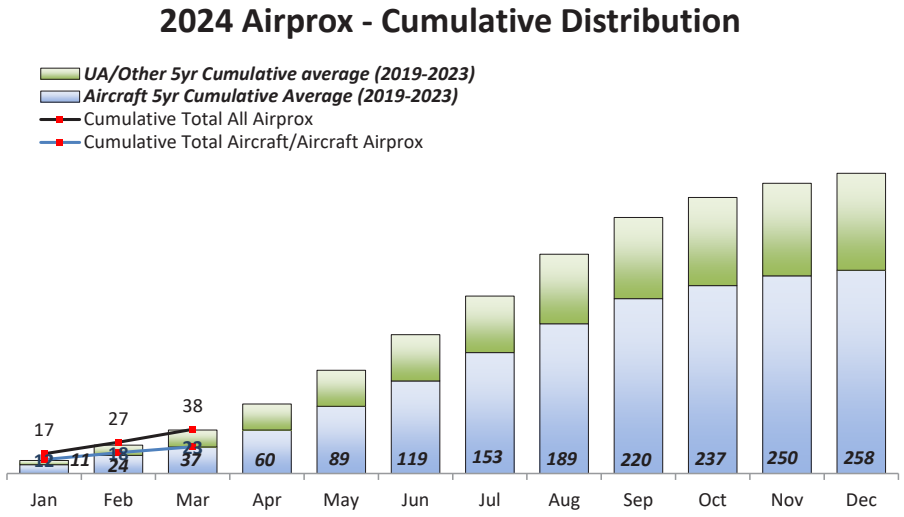
to 359°) select an even altitude (4000ft, 6000ft etc). Of course, this isn't a sure-fire way of ensuring vertical separation because the semicircular rule doesn't apply to aircraft flying under VFR below 3000ft, and it would need every pilot to fly like this which will probably never be the case, but it is certainly worth considering.

Another possibility is to select a cruising altitude that's a little bit random, for example 2350ft, 2650ft etc. We all like the altimeter to look 'neat' while flying but, as in the example above, if both pilots have selected the same altitude then there won't be any vertical separation to mitigate the weaknesses in the lookout barrier.

Again, there's no guarantee that the 'random altitude' we have selected won't be the same as the 'random altitude' another pilot has selected, and I'm sure somebody much more clever than I can work out the odds of those two numbers being the same(!), but it does seem logical that a technique such as this would enhance the chances of having at least some vertical separation from other aircraft in the vicinity.

Finally, a quick thought about getting an Air Traffic Service. In this example, both pilots were in the process of contacting different units for such a service. As part of your communications plan, do you consider 'when' as well as 'who'? We know that pilots often fly towards or away from navigation aids, so try to plan your frequency changes for a phase of flight where going 'eyes in' to change a squawk and/or a frequency is not going to be in an area of likely increased traffic.





UKAB MONTHLY ROUND-UP

This month the Board evaluated 23 Airprox, including five UA/Other events, three of which were reported by the piloted aircraft and two by the drone operator. Of the 20 full evaluations, seven were classified as risk-bearing – two as category A and five as category B. The Board did not make any Safety Recommendations, although there was much discussion regarding overhead joins at airfields.

The Board noted that the description and graphic in The Skyway Code only suggest performing an orbit in the overhead when arriving from the deadside, and members thought that this doesn't really maximise the chances of a pilot gaining a complete picture of the traffic in and around the circuit. Board members would much prefer pilots to conduct an orbit in the overhead *regardless of their arrival direction*. Taking time in the overhead to assess what's below can often pay dividends and help to integrate into the existing pattern.

The graphic above shows that it has been a steady start to 2024 in terms of reporting, with the number sitting around the average for this time of year. With the weather improving, I expect to see that number creeping up (as it does every year) as more and more of us take to the skies.

I hope the commentary on Airprox 2023167 above has given some food for thought on how you can minimise the likelihood of your having an Airprox by planning ahead, both before you get airborne and once you are in flight.

Two into one doesn't go

Airfield arrival and circuit integration – it should be easy, shouldn't it…?

Photo for illustrative purposes : Shutterstock : MyImages - Micha

Last year, following an unusual number of Airprox in the vicinity of aerodromes, I wrote a couple of Insight articles (**June** and **July**) discussing the ins and outs of arrivals and joining procedures.

At this July's Board meeting a number of reports under discussion involved aircraft conducting arrivals, departures or joining the circuit. Although the events took place in February-March, early in the traditional 'flying season', now seems an opportune moment to revisit some of the considerations mentioned in those previous two articles.

We could have looked at a number of Airprox from the meeting to illustrate some of the lessons I'd like to draw out, but the one I've selected is **Airprox 2024044**, an interesting one that involved a PA-28 and an EV97 in Welshpool's ATZ.

The PA-28 pilot had conducted a standard (for Welshpool, at 2500ft) overhead join and was crosswind when they heard another pilot announce that they were joining on a long final for the runway in use. The EV97 pilot was arriving from the north-east and had been flying in company with a C42 (which had been ahead on a similar approach). Only the EV97 had been carrying any form of additional electronic conspicuity equipment, but this didn't warn the pilot about the PA-28. Both aircraft ended up on short final in close proximity.

Welshpool is served by an Air-to-Ground Communications Service (AGCS); an Air Ground Operator (AGO) is not permitted to issue instructions to pilots but can pass information on other traffic that is relevant. In this case, the AGO had informed the PA-28 pilot of the traffic ahead, but the PA-28 pilot had only sighted the C42 as it landed and had assumed that was the traffic to which the AGO was referring. Although the PA-28 pilot visually checked up the approach before turning final, they did not see the EV97 on approach and consequently turned on to final slightly behind and above the EV97. Fortunately, the C42 pilot (who had vacated the runway ahead of the approaching aircraft) spotted the conflict between the two on short final and radioed the EV97 pilot to continue to land with an aircraft above, and the PA-28 pilot to discontinue their approach with an aircraft below.

It was extremely fortuitous that the C42 pilot witnessed the event and had the presence of mind to get on the radio and be directive with the pilots to ensure a safe outcome. But what if they hadn't been there? It would be easy to suggest that the PA-28 pilot should have sighted the EV97 on approach, but we all know that we don't always see everything that's there and, given the proximity of the two, it's likely that the EV97 was hidden from view underneath the PA28's nose.

But what about other means of gaining situational awareness? According to the EV97 pilot, they had made a number of positional calls while on the extended centreline, culminating in their 'short final' call that was almost coincident with the same call from the PA-28 pilot.

The lesson here is that a radio call doesn't guarantee it will be heard by everyone else on the frequency, so continued lookout is essential (appreciating that a pilot naturally concentrates on the runway in the final stages of an approach).

What would you have done had you been the pilot of one of the aircraft involved and the first point that you were aware

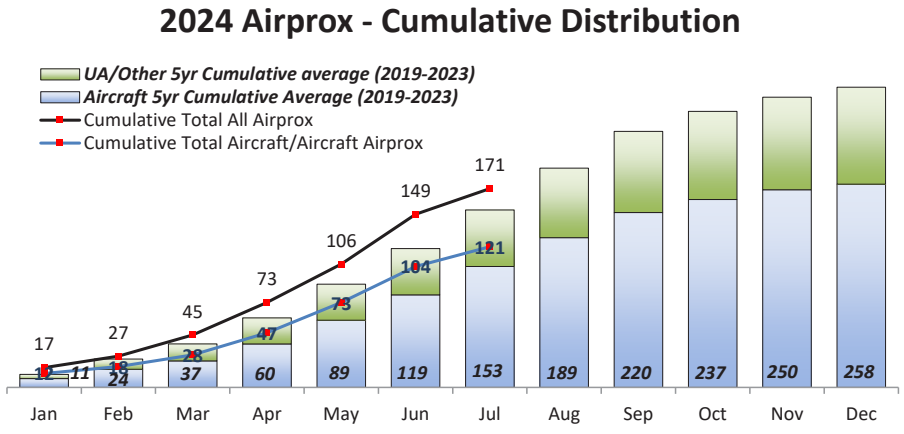
you might be in close proximity to another aircraft was on short final? There's no easy answer as every situation will have a different context, but what the Board applauded in this case was the initiative of the C42 pilot and their subsequent direction to the two pilots – a simple warning to both that there were two aircraft on short final would probably not have resolved the conflict in as safe a manner as was achieved.

Probably the best option for a pilot who finds themselves in this situation is to announce their own intentions on the radio so at least the other pilot has the information they need to support their own decision-making; directing another pilot to do something is not always a good idea because we can't know what the other pilot will be able to achieve in terms of manoeuvring.

The final consideration I'd like to raise is the type of arrival chosen by the individual pilots. The CAA recommends overhead joins to airfields because it gives the opportunity to assess traffic levels and provide options (such as orbiting in the overhead) for ensuring a safe integration into the visual circuit.

At Welshpool, the overhead join is conducted at 2500ft due to the high terrain on either side of the airfield. This might not feel like the most expeditious join if arriving from the north-east for runway 22, but consider what will be lost – in terms of situational awareness of the circuit traffic – if you choose to conduct a different type of join. Add to this the fact that it is an AGCS at Welshpool – where the AGO can only pass traffic information to pilots based on what pilots have told them – then our situational awareness can actually be quite inaccurate.

For every decision we make while flying, we should be asking ourselves 'what if this doesn't work out?' and 'I know the rules say I can, but is it the most sensible course of action?' Of course, there are many factors to consider when making a plan for an arrival or departure and there is often no right or wrong answer, but do consider the implications on others of your chosen plan.



UKAB MONTHLY ROUND-UP

This month the Board evaluated 31 Airprox, including ten UA/Other events, nine of which were reported by the piloted aircraft and one by the drone operator. Of the 22 full evaluations, 11 were classified as risk-bearing – one as category A and ten as category B. The Board didn't make any Safety Recommendations, although there were lengthy discussions regarding airfield procedures for arrivals and departures (unsurprisingly, given the number of Airprox this month that featured arrivals, departures, and circuit traffic). The big takeaway is probably this – ensure you know what the airfield procedures are before you arrive/depart and follow them; if you want to do something different, get on the radio and inform other users.

Airprox reporting continues to be higher so far in 2024 than we would have expected, as can be seen from the graph above. Even with the poor weather we had in the early part of July, we're on course to exceed the number of Airprox reported in 2023. So, a challenge to you all – is there anything you can change about the way you prepare and execute your flights to reduce the likelihood of you adding to these statistics?

When a clearance isn't quite what you think…

Photo for illustrative purposes : Andy Pearson

Did you really understand what ATC's instructions were?

Over recent years there have been a number of expansions of controlled airspace around aerodromes that, historically, hadn't had any controlled airspace associated with their approach and departure procedures.

One such instance is the change to the airspace around Farnborough Airport. The alterations, way back in February 2020, introduced a significant amount of Class D airspace and, initially, many pilots were reluctant to request a crossing of the 'new' Class D area, preferring instead to route around it and remain in Class G airspace.

However, there are a number of Class D airspace areas in the UK where routeing around isn't really a viable option. One example is Edinburgh's CTR, which is why I have chosen **Airprox 2024057** for discussion this month because not only does it involve an aircraft crossing Edinburgh's Class D airspace, but it also involves activity other than IFR arrivals and departures.

This particular event concerned a Viking glider and a PA-28. The Viking pilot had just released from the top of a winch-launch at Kirknewton while the PA-28 pilot was on a VFR transit through the Edinburgh CTR.

The glider was fitted with FLARM and also carried a SkyEcho device configured for ADS-B out only (i.e. the Viking pilot was not carrying any means of exploiting SkyEcho received information). The PA-28 was also fitted with SkyEcho, but the pilot didn't report having received an alert regarding the glider.

The PA-28 pilot had requested a routeing via VRPs at The Bridges (Forth road and rail), Kirkliston and Cobbinshaw Reservoir; however, Edinburgh Airport was operating on RW06 and this routeing would have taken the PA-28 through the approach lane to RW06. Therefore, the controller instructed a routeing of The Bridges, Hermiston (2½ miles SE of the airport), then south and east of Kirknewton and onwards to Cobbinshaw.

The PA-28 pilot appeared to have difficulty in understanding the routeing, confusing VRPs due to the similarity in their names, and not acknowledging the element of the controller's instructions to route to the east and south of Kirknewton (to avoid the Designated Gliding Area – more on that later).

What's more, although the controller had passed information to the PA-28 pilot that Kirknewton gliding was active, their instructions to route to the east and then south of Kirknewton did not specify whether that was to be the VRP or the identically-named airfield.

As it became apparent that the PA-28 pilot's routeing was going to take them close to the gliding activity, the Edinburgh Radar controller transmitted an 'all-stations' broadcast on the Kirknewton gliding frequency warning of the proximity of the PA-28 – unfortunately, it was issued too late for the Viking pilot to abort their launch. Ultimately, the PA-28 pilot routed close to Kirknewton airfield and into proximity with the Viking.

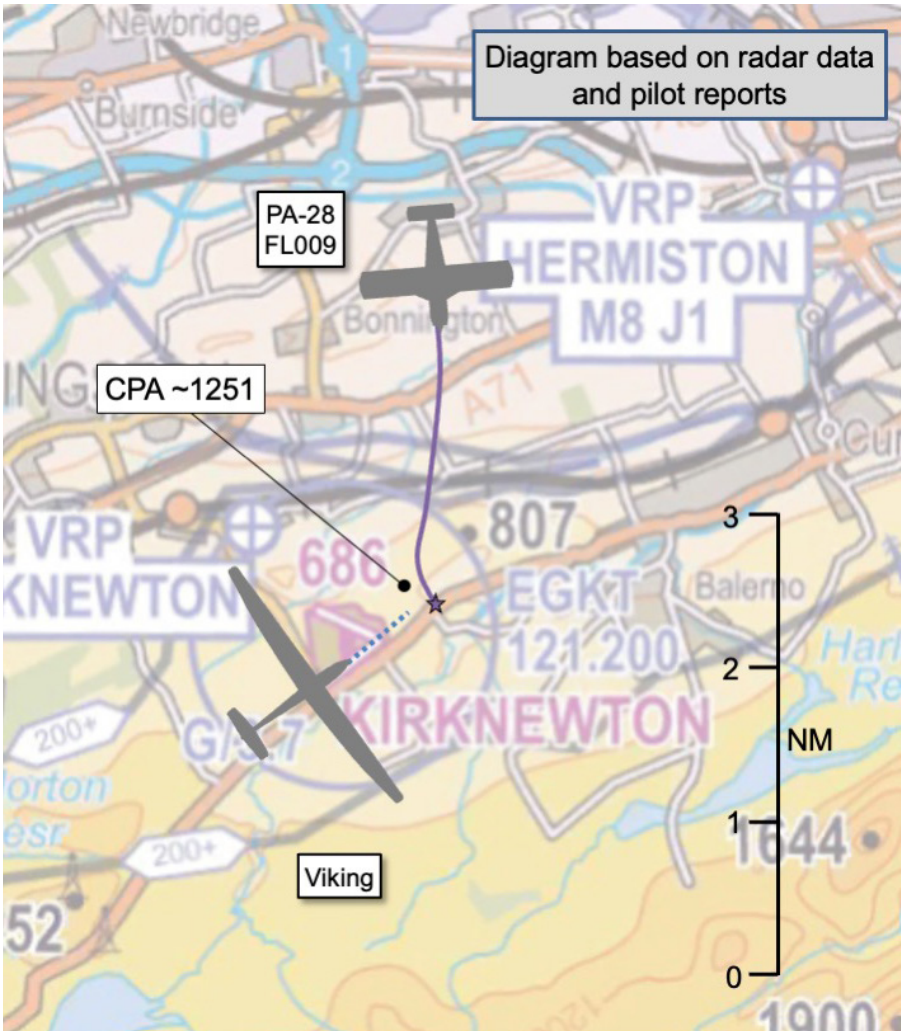
So, what lessons can we take from this? Well, firstly, none of us should be fearful of crossing Class D airspace – the controllers at Edinburgh were doing their best to facilitate a crossing for the PA-28 pilot while trying to keep them clear of the gliding area. When it became apparent that the PA-28 pilot's requested routeing wasn't going to work with the Edinburgh traffic, they looked to get the PA-28 pilot to where they wanted to be by the safest route.

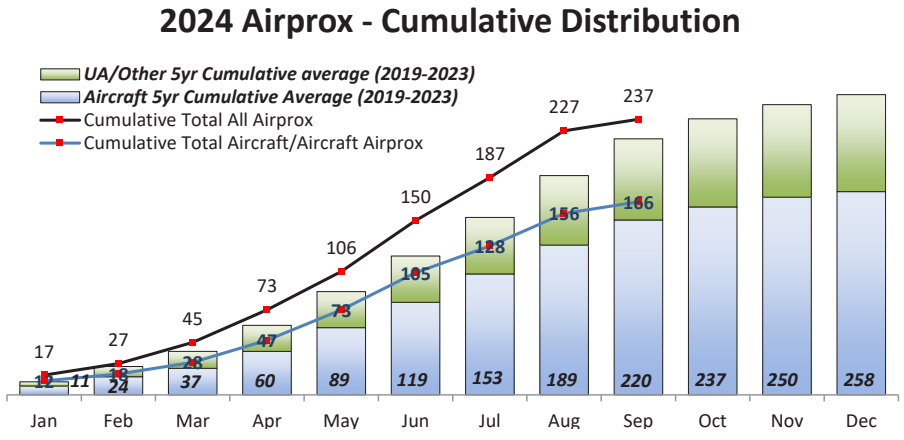
The second lesson I want to draw out is the importance of listening to the clearance and reading back what you understand it to be. If the read back is not what the controller is expecting, then they should correct it. Of course, in this case there was some ambiguity regarding the similar-sounding names of the VRPs (there's a reason why, some years ago, we changed from 'affirmative' to 'affirm'……), not to mention the reference to 'Kirknewton' – which is both a VRP and an airfield – so all the ingredients for a bit of confusion were there.

In pre-flight preparation we should be looking at where we think we might get 'tripped up' (such as a CTR crossing, perhaps because we don't do these very often) and work through a few 'what-ifs' before setting off. In this particular case, it could have been anticipated that the planned routeing might be changed to cater for Edinburgh's traffic, and a good look at the VRPs and other features within the CTR before flight could highlight that there is, in certain cases, potential for ambiguity.

It's also the case that the UK AIP entry for Edinburgh Airport makes no mention of the Kirknewton Designated Gliding Area – it only appears in the Edinburgh MATS part 2 (instructions to controllers at Edinburgh) and a Letter of Agreement between Edinburgh Airport and RAF Kirknewton – so how could the PA-28 pilot have known that the Edinburgh controller was trying to route them clear of a particular area? There is a similar arrangement between Dunstable Downs gliding site and Luton Airport, but the dimensions of the gliding area are published for all to see in the UK AIP entry for Luton Airport.

My final thought is this: if intending to cross Class D airspace, why not call the Air Traffic Control unit during the planning stage and ask what the likely routeing is going to be? Forewarned is forearmed…





UKAB MONTHLY ROUND-UP

This month the Board evaluated 40 Airprox, including 18 UA/Other events, all of which were reported by the piloted aircraft. Of the 22 full evaluations, eight were classified as risk-bearing – one as category A and seven as category B.

The Board also made two Safety Recommendations, both as a result of my Airprox of the Month. The Board recommended that Edinburgh Airport review the naming of its VRPS to remove potential ambiguity, and to publish details of the RAF Kirknewton Designated Gliding Area in the UK AIP entry for Edinburgh Airport.

Airprox reporting continues to be higher so far in 2024 than we would normally have expected, although it is very similar to the reporting levels seen in 2023. However, with autumn well and truly here, I would anticipate fewer reports being submitted over the last quarter of the year.

As the number of 'VFR days' reduces, perhaps now is a good time to take a look back over your summer's flying and ask yourself if there's anything you did well (and want to repeat) or not so well (and want to improve). And here's another thought: while you might not want to fly on bad weather days, they're an ideal opportunity to refresh some of the information that might have faded a touch in the memory bank.

Is 'far enough' fair enough'?

Photo for illustrative purposes : Shutterstock : BlueBarronPhoto

So just how far away is 'far enough away' — it might be too close for the other pilot

With most Airprox in UK airspace occurring in Class G (uncontrolled) airspace, one of the most important (but not the only) safety barriers available in that environment is the See and Avoid barrier. In fact, I often hear Class G airspace described as 'see and be seen' or 'see and avoid' airspace.

While these descriptions are not wholly inaccurate, they do rather miss the point that there are a number of other ways of avoiding getting close to another aircraft – reacting to Traffic Information from an air traffic controller or from an indication on electronic conspicuity (EC) equipment (if carried) to name but two. Often, this information will cue our lookout in the direction of the known threat, but do we have to wait until we see it to act?

With that in mind, I've chosen **Airprox 2024131** between a Cessna 172 and a Grumman American AA-5 over Tilbury for discussion this month.

The Cessna pilot was transiting northbound in receipt of a Basic Service from Southend Radar and they were not carrying any additional form of EC equipment other than their transponder. The AA-5 pilot, meanwhile, was on a north-westerly track in the same area and at a similar altitude and was also in receipt of a Basic Service from Southend Radar; they were carrying a PilotAware device in addition to their transponder.

Neither pilot received any Traffic Information regarding the other aircraft from the Southend controller, but the AA-5 pilot reported that they had received information on the presence of the Cessna from their PilotAware device and they also spotted it. However, the AA-5 pilot didn't take any action to increase separation as they had not deemed it necessary – the radar, however, recorded a separation of 0ft vertically and <0.1NM horizontally at their closest point.

There are a number of things worth noting from this encounter; firstly, with both pilots being in receipt of a Basic Service from Southend, there was no requirement for the Southend controller to have been monitoring either aircraft. This means that neither pilot was likely to have received Traffic Information about the other aircraft.

There is, though, provision within CAP774 – UK Flight Information Services for controllers to pass Traffic Information to pilots under a Basic Service – Chapter 2 paragraph 2.8 states '*If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot ((UK) SERA.9005(b)(2) and GM1 (UK) SERA.9005(b)(2)).*'

I think that, in this case, had the controller actually seen the confliction on their radar screen they would probably have issued a warning, so the crux of the problem here is how do we make sure that the controller sees the confliction?

Well, the onus is on the pilot to request an appropriate level of service – in this case, had either pilot requested (and been given) a Traffic Service, then the controller would have been obliged to have kept an eye on that aircraft and would therefore have been much more likely to have seen the impending conflict.

The second point I want to highlight is the difference between 'converging' and 'overtaking'. Although in this case the AA-5 pilot was on the right ('on the right, in the right'), the two aircraft were not actually in a 'converging' situation. This was an 'overtaking' situation because the AA-5 was approaching the Cessna from behind and was within an angle of 70° from either side of its extended centreline (see The Skyway Code page 63 for more detail).

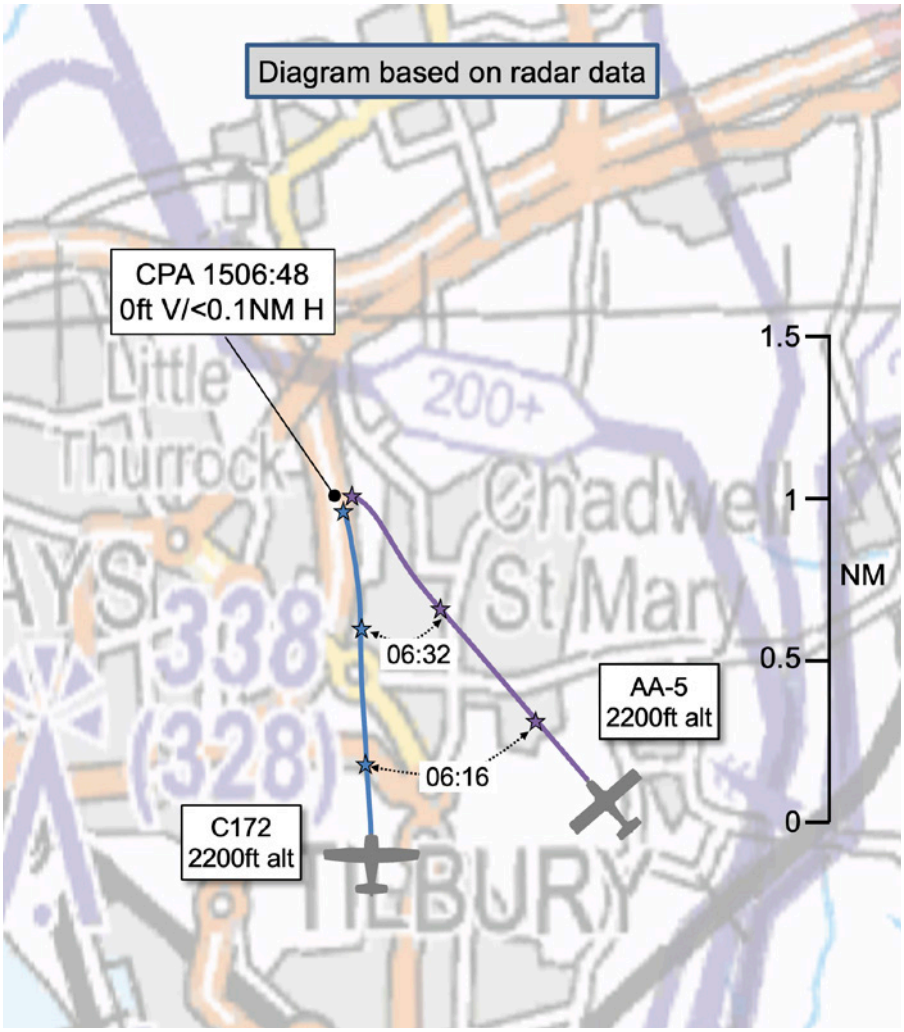
This meant that the responsibility to avoid the other aircraft lay with the AA-5 pilot, and not with the Cessna pilot (as it would have had it been a 'converging' situation).

It's not always easy to judge whether you are converging with or overtaking another aircraft until you get quite close to it, so to avoid doubt – and keep things as safe as possible – why not manoeuvre early to maintain a healthy degree of separation?

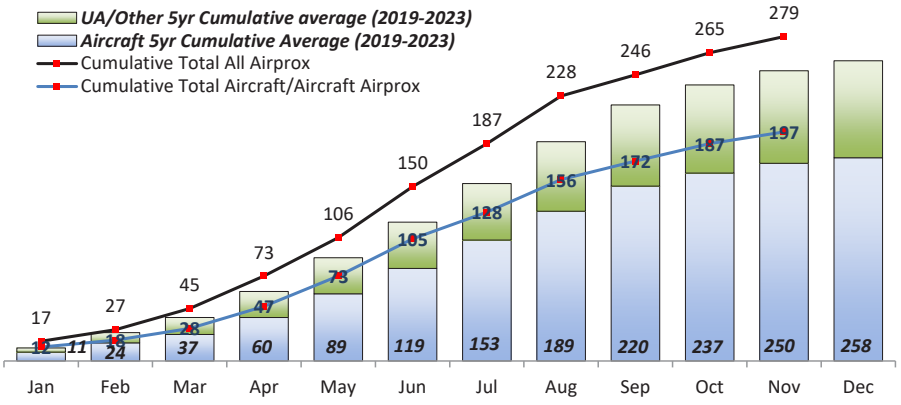
"But what about maintaining course and speed (as required by (UK)SERA.3210)?" I hear you cry. Well, the simple answer is that there is nothing in the rules that prevents a pilot changing altitude to maintain separation, so think about that third dimension. Equally, although the rules do tell us which pilot should avoid the other aircraft in most situations, don't assume that the other pilot has seen you or even knows that you're there; even if it is the responsibility of the other pilot to give way, we all have a responsibility under (UK)SERA.3205 not to operate '*...in such proximity to other aircraft as to create a collision hazard*', so don't leave it until the last minute to do something about it.

Finally, I wanted to say something about 'miss distance'. Although, in Class G airspace, there is no prescribed distance by which we should avoid other aircraft, it makes sense to give them as wide a berth as possible. Think about what you might do if the other aircraft suddenly changes altitude or heading. Will you have enough time to react? Is your lookout in other directions compromised because you want to keep an especially close eye on the aircraft that is near to you?

Remember – what you deem to be a 'sufficient' distance away from another aircraft may well be 'far too close' for the other pilot.



2024 Airprox - Cumulative Distribution



UKAB MONTHLY ROUND-UP

This month the Board evaluated 25 Airprox, including three UA/Other events, two of which were reported by the piloted aircraft and one by the RPAS operator. Of the 24 full evaluations, ten were classified as risk-bearing – one as category A and nine as category B.

The Board made one Safety Recommendation this month to hopefully address an issue where pilots visiting Oxford Airport and operating under VFR do not receive a warning from the Oxford controllers to remain clear of EGD129 (Weston on the Green parachuting drop zone) when it is active (those operating under IFR do receive a warning). **Airprox 2024157** has more details.

As I write this, winter has well and truly arrived, and we have seen a significant (although seasonally normal) reduction in the number of Airprox reports. That said, we have already exceeded the number of reports received in both 2022 and 2023 (when there were no COVID-related restrictions on GA flying) and look on track to have the highest number of aircraft-to-aircraft events we have ever had in one calendar year.

This higher level of reporting might suggest that the UK skies are becoming 'less safe', but it's always difficult to measure 'how safe' something actually is. We do know that not all Airprox incidents are reported, so it's perhaps encouraging that more people are reporting these safety incidents so that we can all learn from them.

I'd encourage every pilot to take a look back through some of these Insight articles and ask themselves if there is anything they would have done differently had they found themselves in similar situations.

Assumption — the mother of all mistakes?

Photo for illustrative purposes: Shutterstock: Everen Kalinbacak

Just because you expect something to happen in a certain way doesn't mean that it will…

Back in June 2023, I looked at an incident between an aircraft joining the circuit at Fairoaks and one carrying out a touch-and-go (Airprox Insight June 2023). The theme of the article was all about double-checking that what we expect to have happened in a certain situation has actually happened, rather than simply assuming that it has.

The UK Airprox Board sees quite a number of events around airfields (aircraft joining, departing or circuit traffic), so I make no apologies for revisiting the question of assumption and the potential risks it poses, particularly when operating in or around the visual circuit.

Airprox 2024145 occurred in the visual circuit at Compton Abbas between a PA-22 and a Tiger Moth. The Tiger Moth pilot had joined the circuit from the south via the overhead and had identified two aircraft ahead. The PA-22 pilot had joined the circuit from the north, again via the overhead, and had identified three aircraft ahead, including the Tiger Moth.

However, once established on the downwind leg the Tiger Moth pilot then identified a fourth aircraft ahead. Unfortunately, there was no radar coverage of the circuit at Compton Abbas, and other data sources (such as ADS-B) were inconclusive, so it was not possible to establish exactly how many aircraft were in the circuit and their relative positions.

Nevertheless, it was apparent from the pilots' reports that the Tiger Moth pilot had extended the downwind leg – possibly to maintain spacing from the aircraft in front – and this had apparently taken them outside the ATZ. The PA-22 pilot lost sight of the Tiger Moth on base leg and only regained sight of it as they were about to turn onto final, with the Tiger Moth already established on final and crossing in front; it seems that the Tiger Moth pilot never saw the PA-22 as they crossed its path. It could not be positively established how close the two were to each other, but the PA-22 pilot reported the separation as 50ft vertically and 50m horizontally.

The first thing to note here is that it shouldn't be expected that circuit traffic will remain within the ATZ, and departing the ATZ is not an indication that an aircraft has left the circuit. Although most (if not all) airfields publish circuit patterns, either on their websites or within the UK AIP, these patterns are not strict ground tracks and the visual circuit is designed to work well when pilots follow the aircraft in front.

Of course, we should all strive to stick to any noise abatement procedures and other local restrictions, but the safety of our and others' aircraft is paramount. No pilot should expect sanction for deviating from local procedures if it is done on safety grounds.

That said, it's important to remain predictable wherever possible so that other pilots know what to expect but, if we do need to deviate from what is considered 'normal procedures', communicating that deviation is vital to help maintain other pilots' situational awareness.

Don't expect others to always have you in sight – as we've seen on numerous occasions (including this example) it's all too easy to lose sight of another aircraft and, when that happens, our mental picture will usually revert to what is 'expected', not necessarily what is actually happening.

If you extend downwind then announce it on the radio; I know this isn't always easy, particularly when the circuit's busy, but if

you can't get in on the radio then consider leaving the circuit and re-joining for another go, rather than risking derailing the train.

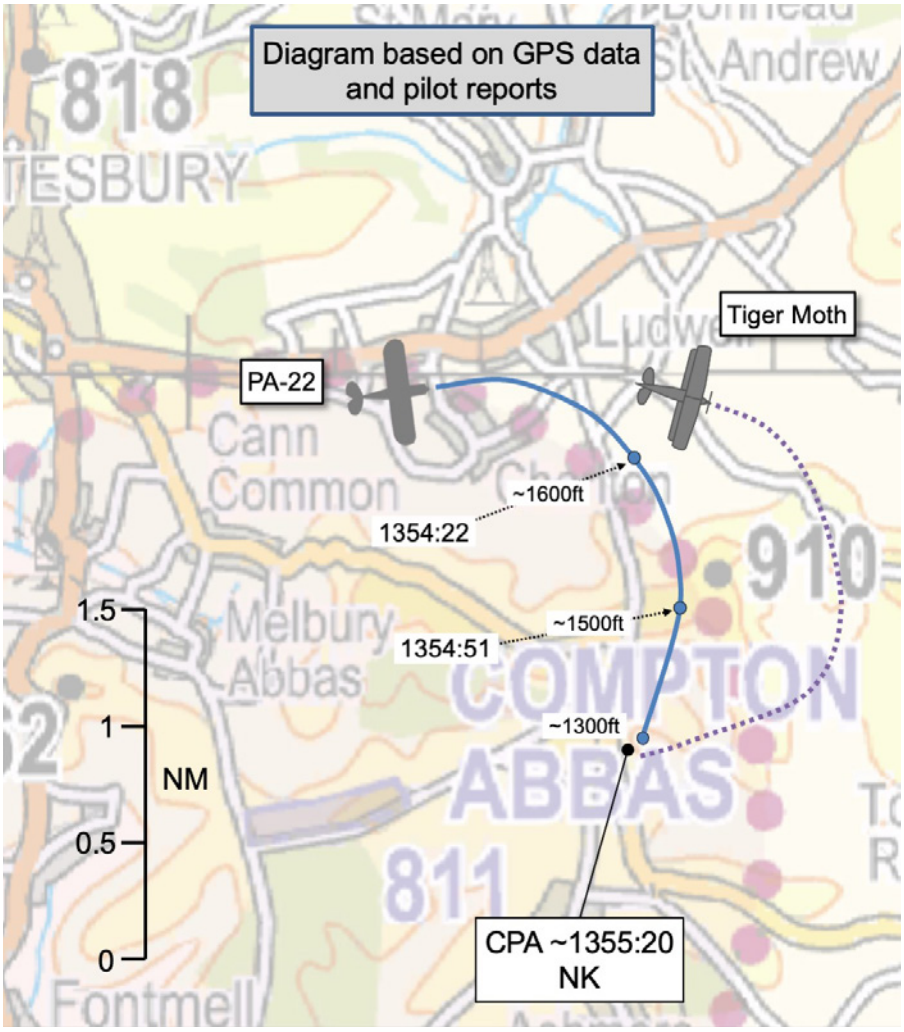
In addition, don't be afraid to ask for the positions of other aircraft if you are unsure. A controller (callsign 'Tower') or FISO (callsign 'Information') should then pass you Traffic Information on other aircraft in the circuit, but it is less clear cut at an airfield served by an Air Ground Communication Service (callsign 'Radio') or one without any formal FIS provision at all (callsign 'Traffic'). In these latter cases other pilots should respond to let you know where they are so that you can find them visually and/or adjust your circuit pattern accordingly.

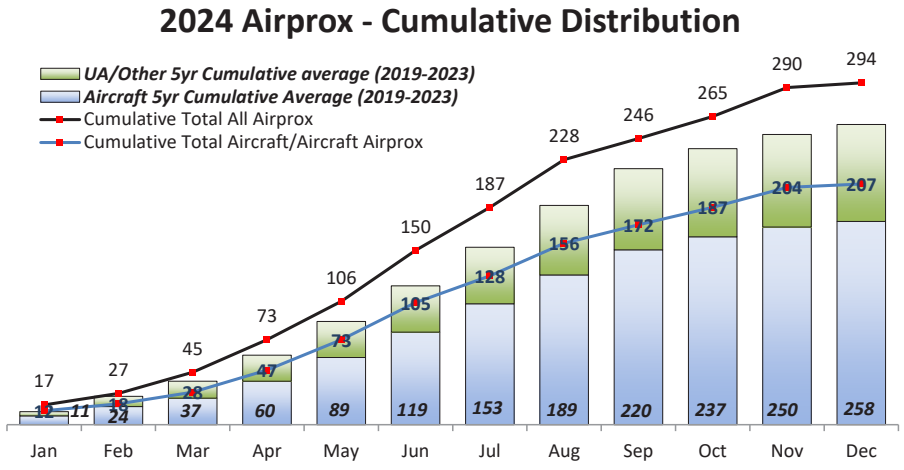
Remember, you don't have to wait until you see the other aircraft to take positive action – if it's all getting too confusing or too difficult to sequence yourself, then consider leaving the circuit by the safest means and then think about rejoining via the overhead and orbiting until you have all the traffic in sight and you can re-integrate safely.

Speaking of the overhead, this is the place to gather situational awareness on all other circuit traffic – we should not begin a descent on the deadside until we are happy that we have identified all the traffic in the circuit and can integrate safely. There's a diagram and explanation of the overhead join on page 104 of The Skyway Code, but this doesn't include an orbit on arrival.

Of course, an orbit won't always be necessary if the circuit isn't busy, and we should be able to get an idea of how busy it is from listening to the radio while approaching the overhead, but if there's any doubt about any of the circuit traffic then an orbit in the overhead is likely to pay dividends. Better to spend an extra minute or so in the overhead to understand where all the traffic is than to end up having an Airprox (or worse) because we are unaware of, or haven't seen, all the other aircraft in the circuit.

Returning to the question of assumption, it's a technique that serves us all extremely well in many situations, but aviation is not really one of those. If there's any doubt as to what is going on then get on the radio and ask – don't assume that because you would behave a certain way in a certain situation that others will do the same.





This month the Board evaluated 18 Airprox, including five UA/Other events, three of which were reported by the piloted aircraft and two by the RPAS operator. Of the 15 full evaluations, three were classified as risk-bearing – all as category B. The Board did not make any Safety Recommendations this month.

Finally, I have included the usual graphic that shows reporting levels over the year. At the time of writing, there were still a couple of weeks to go before the end of 2024 but, given the weather we all experienced in December, I don't anticipate a deluge of reports.

That said, this year has already seen the highest level of reporting on record – it's unclear whether that's down to more open and honest reporting or a genuine increase in the number of events (we know that not all Airprox get reported). While I ponder that question, I'd like to wish you all better weather and happy landings in 2025.

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