A I R P R O KINSIGHT DIRECTOR UKAB'S MONTHLY UPDATE December 2021

Beware the unknown!

Even when everything is on your side, sometimes someone does something totally unexpected...

he particular case I want to highlight this month focuses again on circuit interactions – if it seems I'm paying too much attention to events within ATZs and/or in the circuit that's because I feel it's important — and in this case there was the 'unknown', or surprise if you prefer, factor.

Everyone has to fly in a circuit, whether there's an ATZ or not, if only to take off and land again. It's also the place where one is almost certain to encounter other traffic and where one will often encounter students, or those with lower levels experience than you might have.

Sometimes, though, there's little that can be done and that's why I'm featuring a circuit encounter with an unknown aircraft — in fact there were two Airprox filed as a result of it. I don't normally do this, but I wanted to make the point that even when all is on your side, sometimes someone can do something completely unexpected and the only way to mitigate against it is to be as sharp and diligent with lookout as the pilot was on this occasion.

The reporting pilot in this incident (Airprox 2021069) was on an instructional first circuit sortie with a student and accurately flying the base leg when they saw traffic coming from the opposite direction approximately 100ft above and clearly well within the ATZ. The instructor took control, rolled to 45 degrees angle of bank and increased their rate of descent, they also called the confliction on the radio and a traffic announcement was re-broadcast by the ground supervisor.

The conflicting aircraft could not be traced as it was neither talking on the

radio (either to Halton or to anybody else!) nor did it seem to be fitted with a transponder because the only indications of its presence were the 'primary only' radar returns visible on NATS radar.

There was also a PA-28 in the circuit and, unsurprisingly, they were also unaware of the presence of this unknown aircraft until it was called by the first pilot. This information was critical as it raised awareness of the danger immediately and allowed the pilot of the second aircaft to visually acquire the unknown aircraft and take action to avoid it as well (Airprox 2021070). This in-circuit collaboration and timely and accurate relay of the conflicting aircraft's position was key in preventing a more serious encounter with the other circuit traffic as the intruding aircraft blundered through the ATZ.

UKAB MONTHLY ROUND-UP

The Board considered 19 Airprox this month, including six UA/Other events and 13 aircraft-to-aircraft occurrences. Four of the latter were considered as risk-bearing, with two classified as Category A and two as Category B. Three of these occurred inside ATZ with a further two Category C events also occurring inside an ATZ.

The chart, right, shows the monthly distribution of reported Airprox and it can be seen that, worryingly, the recent monthly distributions are above the five-year average.

One of the main themes discussed by the board was that of discipline, both in terms of flying and radio, especially when working with an Air/Ground Operator, or in more generic terms, when not in receipt of a surveillance-based service.

Moving on to those Airprox inside ATZs, the board commented several times on the importance of visually acquiring all traffic and re-emphasised the point that if one is not sure of the relative positions of others then it's sensible to ask for clarification; furthermore, and especially if one is joining though the overhead and one is not confident about the exact positions of that other traffic, the best course of action might be to remain in the overhead until clarification can be sought and the traffic spotted.

All of these points have been raised several times before and have even been the subject of dedicated INSIGHTS in the recent past, and it's a little worrying that the same conditions appear to be reoccurring time and time again.

I crafted this advice back in September, but I feel it might be wise to repeat it as we move into a period of probable bad weather and reduced flying practice, which is normally the case entering winter:

"In order to join safely or operate safely in the circuit it is imperative that one understands where all the other traffic is. Flying in the circuit is always an activity that's conducted in VMC under VFR and hence lookout is the primary means of deconfliction, however, as we know lookout can be unreliable and it is very easy to misjudge the dynamics of the situation when attempting to integrate with other traffic which may have a different performance – or indeed to integrate with pilots who might be flying

an unusual shaped or sized circuit pattern for some reason. So what can we do to make it safer?



"The first thing is to be absolutely sure you establish who is there already and exactly where they are in the pattern. You can do this visually of course, but that requires you to be close and therefore possibly already in a dangerous situation, so you need to work this out beforehand.

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"You'll normally have established contact with ATC or an Air/Ground operator prior to arriving in the circuit, either to gain permission to enter the ATZ, permission to join or, where permission is not required, to establish the airfield details and gain an appreciation of other traffic.

"With this information you must be diligent in building your mental model so that you can work out how best, and where, to join. If you are unsure – ask for clarification. Secondly – make sure that you have studied the relevant documentation so that you understand what is expected, but more importantly what is not allowed! Thirdly, be accurate and predictable, and if you intend to do something unusual (but permitted) ensure that you have clearly articulated and conveyed your intentions over the radio."

And, finally, expect the unexpected as my Airprox of the Month demonstrates.



2021 Airprox - Monthly Distribution

UA/Other 5yr Monthly Average (2016-2020)

Monthly Total All Airprox

Aircraft 5yr Monthly Average (2016-2020)
 Monthly Total Aircraft/Aircraft Airprox