



AIRPROX *Insight*

DIRECTOR UKAB'S MONTHLY UPDATE

March 2026

Photo for illustrative purposes : Shutterstock: Philip Plojan

AIRPROX OF THE MONTH

Slipping through the barriers



Defences against mid-airs – are we using all the tools available to us?

Having just written an article in this year's [Airprox Digest magazine](#) explaining how the UKAB uses barrier assessment and contributory factors to analyse where weaknesses lie so that we can all learn from Airprox events, I thought I'd follow up with an example of an Airprox where the barriers available to the pilots were extremely limited (sometimes through choice) and didn't work especially well.

I could actually have chosen any one of a number of the events assessed by the Board in March, but the one I have selected for discussion this month is [Airprox 2025243](#).

It took place about two miles south-west of Newbury, Berkshire, and involved an Explorer and a Cessna 172. The Explorer pilot (a PPL-holder) was on a training flight, with an Instructor demonstrating the new Electronic Flight Instrument System (EFIS) and was heading west at the time. Meanwhile, the Cessna pilot was transiting under VFR towards their destination and heading in a southerly direction.

It was a Friday afternoon at around 1515, and neither pilot had agreed any kind of service with an ATS provider (although the Cessna pilot was listening to the Boscombe Down LARS frequency). Furthermore, neither aircraft was fitted with any form of additional electronic conspicuity equipment, over and above the transponders fitted to both aircraft. This all meant that the two were on perpendicular tracks at, or around, the same altitude and on a near-constant relative bearing from each other.

Both pilots saw the other aircraft at a very late stage and the Explorer pilot instinctively pushed forward on the control column while the Cessna pilot decided there wasn't enough time to do anything and there was at least some vertical separation. The actual separation between the two was recorded as 200ft vertical and less than 0.1 miles horizontal, but both pilots reported the separation as being even less than that.

So, what about the barriers that had been available to the pilots to assist in avoiding this situation? This is probably best explained with

the aid of a diagram of the barriers to mid-air collision and their relative contributions (*see figure 1*).

The elements coloured green are the Ground Elements (normally, but not exclusively, a controller, (A)FISO or AGO) and the elements coloured blue are the Flight Elements (the pilot and/or any additional crew or passengers). Each of the barriers is given a weighting according to its contribution to the overall defence against a mid-air collision.

More about this can be found in my article in this year's [Airprox Digest magazine](#), so I won't go any deeper into that here; suffice to say that these barriers are usually, but not always, available.

So, looking at our Airprox, what was available to the pilots (*see figure 2*)? Well, it took place within the nominal coverage of Boscombe Down LARS and at a time when it would normally be expected to have been available.

However, neither pilot had chosen to talk to Boscombe (although the Cessna pilot had selected the Boscombe frequency to listen to).

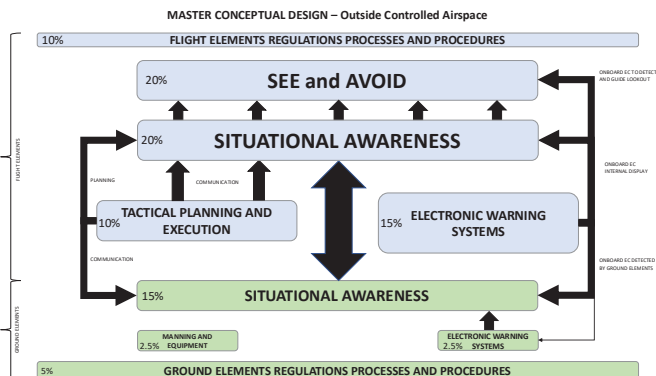


Figure 1

Airprox Barrier Assessment: 2025243 Outside Controlled Airspace

Barrier	Provision	Application	Effectiveness				
			Barrier Weighting				
			0%	5%	10%	15%	20%
Regulations, Processes, Procedures and Compliance	●	●	[Bar chart showing 100% effectiveness]				
Manning & Equipment	●	●	[Bar chart showing 100% effectiveness]				
Situational Awareness of the Conflicting & Action	●	●	[Bar chart showing 100% effectiveness]				
Electronic Warning System Operation and Compliance	●	●	[Bar chart showing 100% effectiveness]				
Regulations, Processes, Procedures and Compliance	●	●	[Bar chart showing 100% effectiveness]				
Tactical Planning and Execution	●	●	[Bar chart showing 100% effectiveness]				
Situational Awareness of the Conflicting Aircraft & Action	●	●	[Bar chart showing 100% effectiveness]				
Electronic Warning System Operation and Compliance	●	●	[Bar chart showing 100% effectiveness]				
See & Avoid	●	●	[Bar chart showing 100% effectiveness]				

Key:
 Full: Green circle
 Partial: Yellow circle
 None: Red circle
 Not Present/Not Assessable: Grey circle
 Not Used: Red square

Figure 2

This meant that 25% of the defences against a mid-air collision (the Ground Elements portion) was, in this case, unavailable from the outset.

Not only that, the decision not to agree a service with Boscombe also had a knock-on effect on the Flight Elements barriers (note the arrows that flow between each of the barriers, indicating an interaction to at least some extent) – notably the Situational Awareness barrier.

Without a service, there was no way either pilot could have received a warning from ATC of the impending conflict, thus degrading the Flight Elements – Situational Awareness barrier. What’s more, with neither aircraft having been fitted with any kind of additional electronic conspicuity equipment, the Flight Elements – Electronic Warning Systems barrier was also absent, and this similarly had a negative impact on the performance of the Flight Elements – Situational Awareness barrier, which was ultimately assessed to have been Ineffective because neither pilot had any idea that the other aircraft had been in the vicinity.

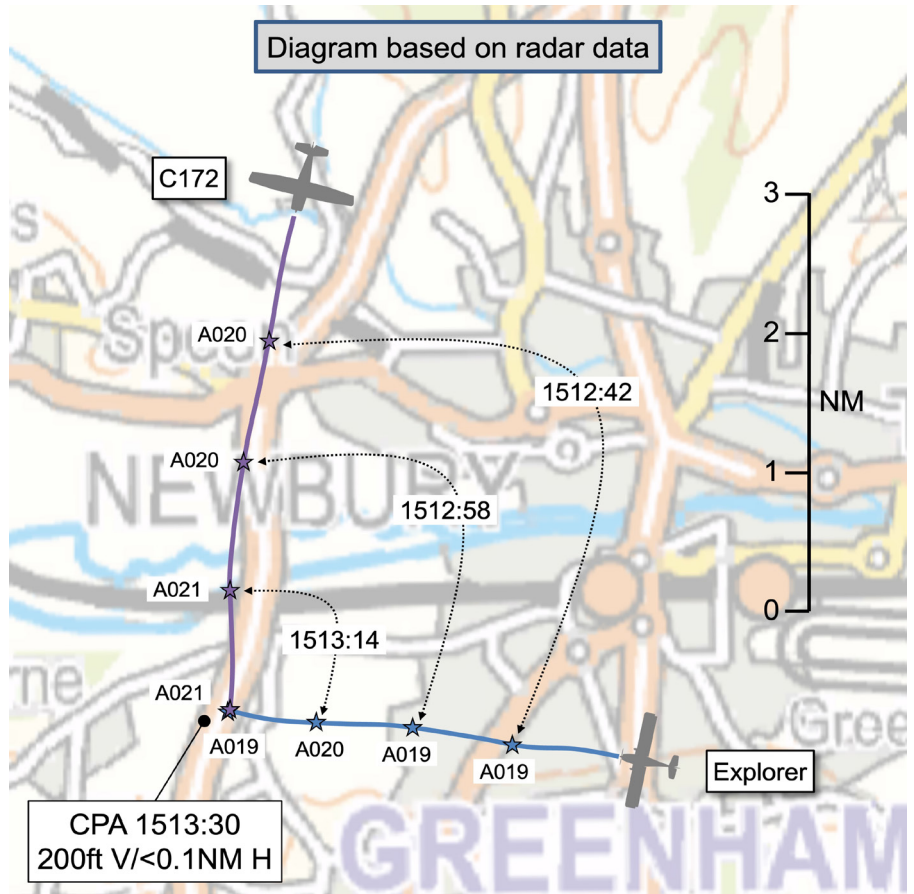
The Tactical Planning and Execution barrier was assessed to have been only Partially Effective, because neither pilot had chosen to secure an air traffic service from Boscombe Down, which left the Rules Regulations and Procedures barrier (10% contribution) and the See and Avoid barrier (20% contribution) as the only remaining barriers.

Because both pilots had been operating in accordance with the relevant rules and regulations, that barrier was judged to have been Fully Effective. However, because neither pilot had seen the other aircraft in time to materially increase the separation between the aircraft, the See and Avoid barrier could not have been deemed to have been Fully Effective.

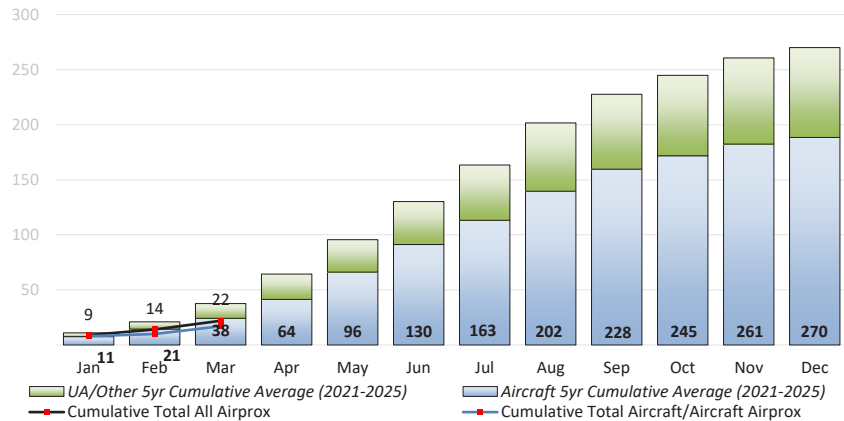
There was some discussion in the Board meeting that this barrier had completely failed but, ultimately, the Board agreed there had at least been some effort to ensure separation and it was satisfied that the barrier had been Partially Effective. All in all, only three of the nine barriers to mid-air collision played any part in this encounter, and the performance of those can best be described as variable. Food for thought...

BOARD SUMMARY

This month, the Board evaluated 17 Airprox, including three UA/Other events, two of which were reported by the piloted aircraft and one by the RPAS operator. Of the 16 full evaluations, four were classified as risk-bearing – one as category A and three as category B.



2026 Airprox - Cumulative Distribution



The Board also made two Safety Recommendations at March’s meeting – one following an Airprox between two Typhoons where the Board considered that the local departure procedures need a review, and one following an Airprox between a military transport aircraft conducting low-flying training and a military drone operating within the Low Flying System where neither crew was aware of the other’s operation.

The graphic above is the first of 2026 and shows that it’s been a slow start to the year in terms of reported Airprox. This is probably to be expected, given that, in parts of the country, it didn’t stop raining for the first two months of the year.

I’m encouraged by this reduction, but I don’t underestimate the influence of external

factors on the overall reporting picture. It’s to be expected that some Airprox will not be reported, but I’d like to remind readers that, without reporting, we can’t gather the data to provide evidence for improvements. So, please do report any incident so that we can take a look at what lessons can be drawn for the benefit of yourself and others. Reporting forms are available on the [UKAB website](#), but if you prefer to submit via the [CAA’s MOR scheme](#) (or are obliged by regulation to do so) then we’ll accept those as well.

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