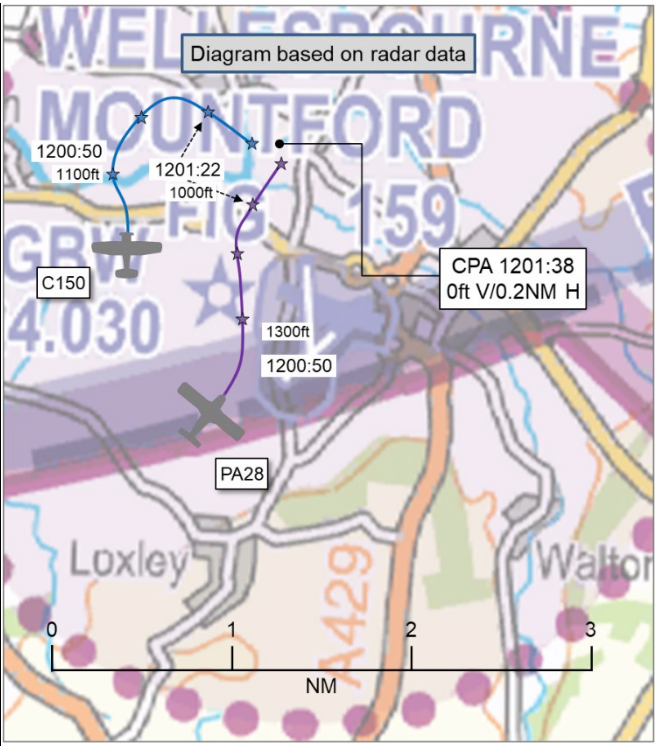
AIRPROX REPORT No 2024277

Date: 17 Nov 2024 Time: 1202Z Position: 5213N 00137W Location: Wellesbourne ATZ

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C150	PA28
Operator	Civ FW	Civ FW
Airspace	Wellesbourne ATZ	Wellesbourne ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Wellesbourne	Wellesbourne
Altitude/FL	1000ft	1000ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White and blue	White and blue
Lighting	Beacon, strobes, navigation	Beacon
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1000ft	1000ft
Altimeter	QNH (1015hPa)	QFE
Heading	100°	360°
Speed	NK	90kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	0ft V/100m H	0ft V/0m H
Recorded	0ft V/0.2NM H	



THE C150 PILOT reports that they had been in the circuit with their student when they turned onto base leg heading 100°. When they had reached approximately 1000ft QNH still on the base leg, they had seen the PA28 coming toward them (heading 360°) at the same altitude, above RW18 threshold. According to the Wellesbourne AFISO, the PA28 was ahead of the C150 on downwind, but for some reason they appeared to be going towards the north. The C150 pilot had to turn left to avoid the PA28 and initiated a left-hand orbit outside the ATZ.

The pilot assessed the risk of collision as 'High'.

THE PA28 PILOT reports that they had done a standard overhead join at Wellesbourne, tracking in from the east (Gaydon). They had reported 'overhead RW18' then proceeded to continue the join procedure by descending on the deadside and entering the circuit at 1000ft QFE. They stated that their downwind was slightly tight, and the call was made at the end of 'downwind' and, due to a crosswind coming from 270°, they overshot their turn onto final, but readjusted and completed the landing. They had only become aware of the other aircraft after speaking to the tower before leaving Wellesbourne. As far as they were aware, when they had joined the circuit it was clear and they were known to be inside due to making the correct calls. The [other] traffic had been on their left before it turned so the PA28 pilot had assumed they would have the right of way.

The pilot assessed the risk of collision as 'Medium'.

THE WELLESBOURNE AFISO reports that they had been the AFISO on duty when the Airprox involving the C150 and a PA28 occurred. The runway in use was RW18RH. […]. The PA28 had been inbound from […] and had joined the circuit from the overhead, descended deadside and was seen proceeding crosswind from the deadside of the circuit. The PA28 had received Traffic Information that one aircraft was already in the circuit and had been climbing out following a touch-and-go. The […] C150 had two POB, a student and a flying instructor. The C150 had been conducting circuits and was

observed crosswind, slightly wide in the circuit about to turn downwind, having just completed a touch-and-go. The PA28 pilot called downwind. The AFISO reports that they had told the PA28 pilot to call final, but had not been visual with it when they had made that call as there had been a partial blind spot from their position in the tower. The C150 student called downwind after the PA28 and was seen in the mid-downwind position. The C150 pilot was told to report final and was given Traffic Information that one aircraft was reported ahead downwind. The C150 pilot replied "Report final, [C150 C/S]". The AFISO did not recall [either the instructor or the student] of the C150 confirming whether the traffic was in sight or not, and they did not query the PA28 aircraft's position when they had called downwind. The AFISO had continued to talk to other aircraft on frequency as well as ground vehicles operating on the manoeuvring area, and was expecting to see the PA28 on the base leg with the intention of the aircraft shortly turning final, but it was not visible where they had expected it to be. At this point, the AFISO had then asked the PA28 pilot for their position and had then spotted the aircraft at the bottom of the downwind leg quite tight in and saw the C150 on their left with the PA28 inside and to the right of the C150. The AFISO cannot recall if the PA28 pilot had responded directly, but the C150 instructor then called to ask what the PA28 was doing to the right of their aircraft and what their intentions were. The AFISO explained that the PA28 was in the circuit to land, and was downwind and confirmed that the PA28 was inside the C150 to their right. The AFISO did say [at that time] that they had communicated that Traffic Information to the C150 pilot when they had called downwind. Looking from their position in the tower, both aircraft looked to be almost parallel to each other when they started to turn right base from the bottom of the downwind leg, with the C150 potentially just slightly ahead in the turn at this point. They estimated that the separation between the two aircraft had been between 0.5 and 0.75NM laterally with both aircraft looking to have been at a similar height. The AFISO had then seen the C150 pilot start a left turn to carry out a left-hand orbit to deconflict from the PA28. At the point at which the C150 turned left to carry out a left-hand orbit, it had started to converge with the PA28 and looked to become closer to it. The AFISO estimated that there was probably between 0.25 and 0.5NM separation laterally between both aircraft at a similar height at this time. As the PA28 continued along the base leg, the aircraft was seen to overshoot the final approach turn and proceeded to pass through the extended centreline of RW18 towards the east of the runway, turning back on themself and then turning left to re-establish on the final approach at approximately 1.5NM from the runway threshold. The PA28 pilot called finals and landed, touching down halfway down the runway. Whilst the AFISO had been continuing to observe both aircraft, they did not give any further Traffic Information at the point the C150 pilot had turned left to deconflict with the PA28 and allow it to continue on the base leg as they had been of the opinion that the C150 pilot was still visual with the PA28 aircraft. The C150 pilot had not reported any loss of contact with the PA28. The C150 pilot continued the left-hand orbit away from the PA28 aircraft, re-established on a right base for RW18, and then turned final to land. The C150 instructor asked if any other aircraft were in the circuit to affect before re-establishing on the right base. The pilot of the C150 was given Traffic information that there was nothing to conflict with the aircraft re-establishing on right base.

After landing, the AFISO had spoken to the C150 instructor and the PA28 pilot separately to discuss the incident and ask whether an Airprox report would be submitted. The C150 pilot said they had intended to file an Airprox report and had seen the PA28 aircraft coming back towards them from the eastern side of the extended RW18 centreline. The AFISO explained to the C150 pilot that the PA28 had passed through the extended centreline of RW18, and the aircraft had turned back on itself and turned left to re-establish on final approach to land. Speaking to the pilot of the PA28, who explained that they were an hours-building PPL holder, the AFISO had asked if they had seen the C150 and they had stated that they hadn't seen the C150 outside them at the bottom of the downwind leg. The pilot remarked that they had the right of way, being on the right of the C150 at a similar height. Based on the observed position of the PA28 close in to the runway at the bottom of the downwind leg, the AFISO believed that the PA28 completed a very tight circuit and whilst the PA28 effectively had the right of way, having been on the right of the C150, the PA28 pilot looked to have positioned the aircraft much closer in downwind than the standard circuit pattern. When the PA28 pilot overshot the final approach turn and passed through the extended centreline of RW18, the C150 looked to have moved away some distance from the PA28, increasing the lateral separation between the two aircraft. When the PA28 pilot had turned back on itself, the AFISO estimated probably between 0.5 and 1NM lateral separation had existed between the two aircraft.

The controller perceived the severity of the incident as 'Medium'.

Factual Background

The weather at Birmingham Airport was recorded as follows:

```
METAR EGBB 171150Z 28009KT 250V320 9999 SCT024 09/05 Q1015=
```

Analysis and Investigation

Wellesbourne Mountford

Incident Details

An Airprox report was submitted following the Instructor pilot of a C150 having reported close proximity with a visiting PA28 aircraft turning right base RW18. The PA28 was inside the C150 having joined from the deadside. The C150 pilot deconflicted with the PA28 making a left-hand orbit away from the PA28. The PA28 landed on RW18 and the C150 re-established on base leg and landed.

The AFISO reports that the Airprox involved a C150 and a PA28 aircraft. Unofficial weather conditions were: surface wind 250/08kt, unofficial visibility observation estimated to be 10km or better, unofficial cloud base observation estimated to be scattered at approximately 1800ft and scattered at approximately 3500 - 4000ft, temperature + 6°C QFE 1010 QNH 1015. The PA28 had been inbound from […] with two POB, had joined the circuit from the overhead, descended deadside and was seen proceeding crosswind from the deadside of the circuit.

The PA28 [pilot] had received Traffic Information from the AFISO that one aircraft was already in the circuit and had been climbing out following a touch-and-go. The […] C150 had two POB, a student and a flying instructor. The C150 was conducting circuits and was observed crosswind slightly wide in the circuit about to turn downwind, having just completed a touch-and-go. The PA28 [pilot] called downwind. The AFISO told the PA28 [pilot] to call final, but was not visual with it when they called as there is a partial blind spot from the position in the tower.

The C150 student called downwind after the PA28 [pilot] and was seen in the mid-downwind position. The C150 pilot was told to report final and was given Traffic Information to say one aircraft was reported ahead downwind. The student said, "report final". The AFISO did not recall either the instructor or the student of the C150 confirming whether the traffic was in sight or not, and they did not query the PA28 aircraft's position when they called downwind.

The AFISO continued to talk to other aircraft on frequency as well as ground vehicles operating on the manoeuvring area and had been expecting to see the PA28 on the base leg with the intention of the aircraft shortly turning final, but it was not visible where they expected it to be. At this point, the AFISO then asked the PA28 pilot for their position and then spotted the aircraft at the bottom of the downwind leg, quite tight in, and saw the C150 on their left with the PA28 inside and to the right of the C150.

The AFISO states that they cannot recall if the PA28 pilot responded directly, but the C150 instructor called to ask what the PA28 was doing to their right and what their intentions were. The AFISO explained that the PA28 was in the circuit to land, had been downwind and confirmed that the PA28 was inside the C150 to their right and said that that Traffic Information had been given to the C150 pilot when they had called downwind. The AFISO describes that from the position in the tower, both aircraft looked to be almost parallel to each other when they had started to turn right base from the bottom of the downwind leg, with the C150 potentially just slightly ahead in the turn at that point. The AFISO estimated that the separation between the two aircraft was between 0.5 and 0.75NM laterally, and both aircraft looked to have been at a similar height. The AFISO then saw the C150 starting a left turn to carry out a left-hand orbit to deconflict from the PA28. At that point the C150 started to converge with the PA28 and looked to become closer to it.

The AFISO estimated that there had probably between 0.25 and 0.5NM separation laterally between both aircraft at a similar height at that time. As the PA28 continued along the base leg, the aircraft was seen to overshoot the final approach, turn and proceeded to pass through the extended centreline of RW18 towards the east of the runway, turning back on themself and then turning left to re-establish on the final approach to land, reported by the AFISO as being approximately 1.5NM from the runway threshold. The PA28 pilot called finals and landed, touching down halfway down the runway.

Whilst the AFISO was continuing to observe both aircraft, they did not give any further Traffic Information at the point the C150 had turned left to deconflict with the PA28 and allowed it to continue on the base leg as they had been of the opinion that the C150 instructor had still been visual with the PA28 aircraft. The C150 instructor had not reported any loss of contact with the PA28. The C150 pilot continued the left-hand orbit away from the PA28, re-established on a right base for RW18, and then turned final to land. The C150 instructor asked if any other aircraft were in the circuit to affect before re-establishing on the right base.

The C150 pilot was given Traffic Information that there was nothing to conflict with the aircraft re-establishing on right base. After landing, the AFISO spoke to the C150 instructor and the PA28 pilot separately to discuss the incident and asked whether an Airprox report would be submitted. The C150 instructor, whom they saw and spoke to first, said they intended to file an Airprox report and had seen the PA28 aircraft coming back towards them from the eastern side of the extended RW18 centreline. The AFISO explained to the instructor that the PA28 had passed through the extended centreline of RW18, and the aircraft had turned back on itself and turned left to re-establish on final approach to land. Speaking to the pilot of the PA28, the PA28 pilot explained that they had been an hour building PPL holder, the AFISO asked if they had seen the C150 and they had stated that they hadn’t seen the C150 outside them at the bottom of the downwind leg.

The pilot remarked that they had the right of way, being on the right of the C150 at a similar height. Based on the observed position of the PA28 close in to the runway at the bottom of the downwind leg, the AFISO believed that the PA28 completed a very tight circuit and whilst the PA28 effectively had the right of way, being on the right of the C150, the PA28 pilot looked to have positioned the aircraft much closer in downwind than the standard circuit pattern. When the PA28 pilot overshot the final approach turn and passed through the extended centreline of RW18, the C150 looked to have moved away some distance from the PA28 increasing the lateral separation between the two aircraft. When the PA28 turned back on itself, the AFISO estimated probably between 0.5-1NM lateral separation existed between the two aircraft.

Investigation Findings

From the information provided by the AFISO and a review of the PA28’s flight track from the Flight Aware app, the PA28 [pilot] appeared to have made a poor overhead join, positioning close to the runway downwind, contrary to the normal downwind position.

The AFISO saw both aircraft at the top of the downwind leg, but was not able to see both aircraft as [they had then] proceeded downwind. The C150 and PA28 appeared to have been on a parallel course as they proceeded to the bottom of the downwind leg. The AFISO reported separation between the 2 aircraft with the PA28 on the right of the C150, close in to the runway.

From the information provided, as both aircraft turned base leg the C150 looked to have converged towards the PA28. It is understood that the C150 [pilot] was visual with the other aircraft at the bottom of the downwind leg, following, the C150 pilot asking what the PA28 pilot’s intentions were. The AFISO reported that the C150 turned left to deconflict with the PA28. The PA28 pilot overshot the centreline for the final approach turn where it turned back towards the runway to establish on final approach to land. The AFISO spoke with the C150 pilot after landing and explained what the PA28 had been doing on the final approach.

The AFISO reported in their submission that the PA28 pilot had not seen the C150 at the bottom of the downwind leg.

In conclusion, the PA28's position to the right of the C150 looked to have the right of way, based on the rules of the air, however, the PA28's position downwind had not been in accordance with the published circuit information. The AFISO provided Traffic Information when the C150 pilot asked about the PA28 pilot's intentions at the bottom of the downwind leg. The separation between aircraft remained the responsibility of the aircraft commander, the AFISO explained that they believed that the C150 pilot had visual contact and, from the Flight Aware trace, appeared to have taken avoiding action to maintain adequate separation.

Further Actions

The importance of reporting Airproxes [at the time] was communicated at the Safety Meeting in January 2025.

CAA ATSI

The pilot of the PA28 appeared to have completed a good overhead join and descent deadside. They were then well placed to follow the C150 which had been downwind whilst the PA28 was still crosswind. However, the PA28 pilot had then turned onto a very tight downwind circuit, now inside the C150, called downwind before the pilot of the C150 and, although not visible to them, the AFISO appeared to believe that they were No.1 with the C150 pilot not having yet called downwind and so requested the PA28 pilot to report final.

When the pilot of the C150 did then subsequently call downwind, and with the PA28 now visible to the AFISO, they were given Traffic Information on the PA28 suggesting that the AFISO still believed that the PA28 had been No.1.

With Traffic Information having been passed by the AFISO suggesting the order was the PA28 then the C150, it would then appear from their report that the pilot of the C150 also understood they were No.2, but they didn't confirm in their report if they were visual with the PA28 prior to the Airprox itself.

Despite the tight positioning by the pilot of the PA28, the sequence could have been considered to have still worked with them having been No.1. However the Airprox appears to have occurred due to a manoeuvre made by the pilot of the PA28 who, (in their report stated they were too tight due to the upper wind), had adjusted their circuit by turning away from final approach and towards the C150.

Without recorded RTF, ATSI was unable to confirm the order of calls made by the pilots and Traffic Information passed to them by the AFISO, nor any acknowledgement of that TI by either pilot.

UKAB Secretariat

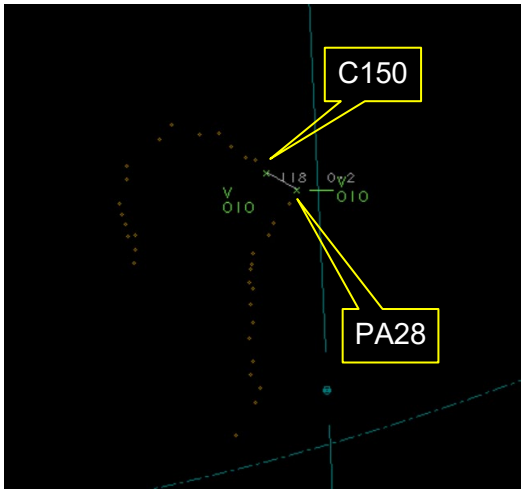


Figure 1: At CPA: 1201:38 0ft V/0.2NM H

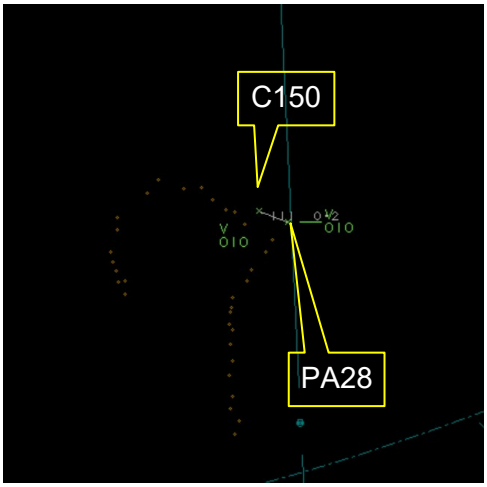


Figure 2: At CPA +4sec

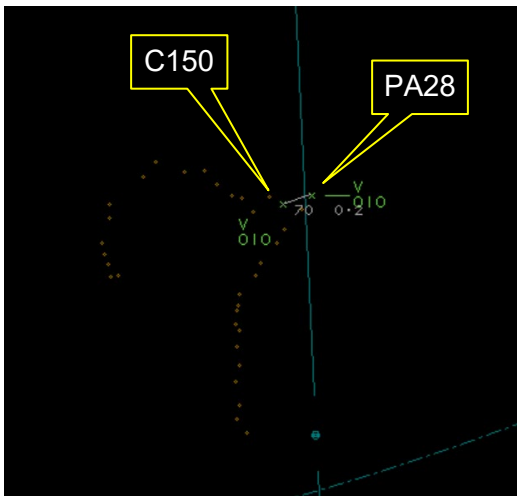


Figure 3: At CPA +8sec

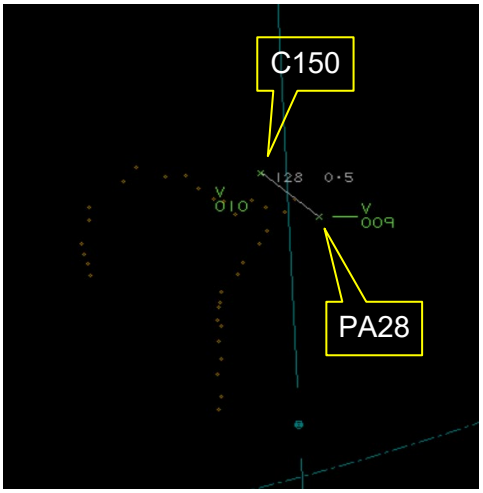


Figure 4: At CPA +12sec

Both aircraft were tracked by radar and identified through Mode S. Figures 1-4 above show the relative positions of the C150 and the PA28 at and beyond CPA.

The C150 and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[1] An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation.[2]

Summary

An Airprox was reported when a C150 and a PA28 flew into proximity in the Wellesbourne circuit at 1202Z on Sunday 17th November 2024. Both pilots were operating under VFR in VMC and in receipt of an Airfield Flight Information Service from Wellesbourne Mountford.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the AFISO involved and a report from the appropriate operating authority. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

Members firstly discussed the actions of the C150 pilot they noted that the pilot had been completing circuit training with a student and had turned onto the base leg for RW18 and then unexpectedly encountered the PA28 to their right (**CF6**) heading approximately north and, having been concerned by its proximity (**CF8**), had elected to initiate a left-hand orbit to generate separation between themselves and the PA28. Traffic Information had been called to the C150 pilot regarding the PA28 whilst on the downwind leg, but the AFISO could not recall if that information had been acknowledged and, as neither aircraft had carried electronic conspicuity equipment, the Board considered the C150 pilot to have attained only generic situational awareness of the presence of the PA28 (**CF5**). The C150 pilot had then requested from the AFISO the status and intention of the PA28 and had then re-established on the base leg and landed on RW18 after the PA28. The Board felt that the actions of the C150 pilot had positively generated separation between the 2 aircraft and wished to remind all pilots that an alternative option in this case could have been for the C150 pilot to have extended the downwind leg and subsequently turned in behind the PA28. They did recognise that, having already committed to a turn onto base leg, this would have meant a reversal to their left to re-establish themselves on the extended downwind option.

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

Moving onto the actions of the PA28 pilot, members noted that the pilot had been hours-building, potentially to have been less experienced than the Instructor in the C150 and may have misjudged the width of the circuit in place, putting themselves too close to the active runway to achieve an orderly circuit (**CF2**, **CF3**) and that this in turn may have led to their fly-through of the finals approach track demanding a reversal and correction before landing. The Board felt that the PA28 pilot's reference to having been 'on the right' and therefore having priority may have been a misinterpretation of the wider Class G flying rule of 'on the right, in the right' whereas, in this case, the PA28 pilot had been required to have conformed with the pattern as established by the C150 (**CF4**). Ultimately, the positioning of the PA28 pilot had led to a concern of proximity for the pilot of the C150 (**CF7**).

In reviewing the contribution by the Wellesbourne AFISO, members thanked both the AFISO and the investigating officer for their comprehensive reports on this incident. The Board noted that the AFISO had made appropriate Traffic Information calls, and calls to ground movements traffic, whilst monitoring activity in the circuit. They acknowledged that the AFISO had had an interrupted view of the 2 aircraft at the late downwind position and had witnessed the C150 pilot initiating a left-hand orbit to generate spacing as the PA28 pilot had turned onto, and through, finals to land on RW18. The Board accepted that, at times, the AFISO had been uncertain of the various aircraft positions as they had moved around the circuit and that their situational awareness on the PA28 had been inaccurate (**CF1**), but felt that they had done as much as could have been expected in this case.

Concluding their discussion, members noted that the C150 pilot reports having gained visual contact with the PA28 at a late stage and had initiated avoiding action as they had been uncertain as to its actions as it had sat inside the circuit to their right-hand side. The PA28 pilot reports as having seen the C150 to their left-hand side and assumed that this had given them priority in the circuit. Members therefore felt that, although safety had been degraded, because both pilots had been visual with the other aircraft there had been no risk of collision and assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024277			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
2	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
	• Tactical Planning and Execution			
3	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
4	Human Factors	• Monitoring of Environment	Events involving flight crew not to appropriately monitoring the environment	Did not avoid/conform with the pattern of traffic already formed
	• Situational Awareness of the Conflicting Aircraft and Action			
5	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
	• See and Avoid			
6	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
7	Human Factors	• Incorrect Action Selection	Events involving flight crew performing or choosing the wrong course of action	Pilot flew close enough to cause concern

8	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C.

Safety Barrier Assessment[3]

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Ground Elements:

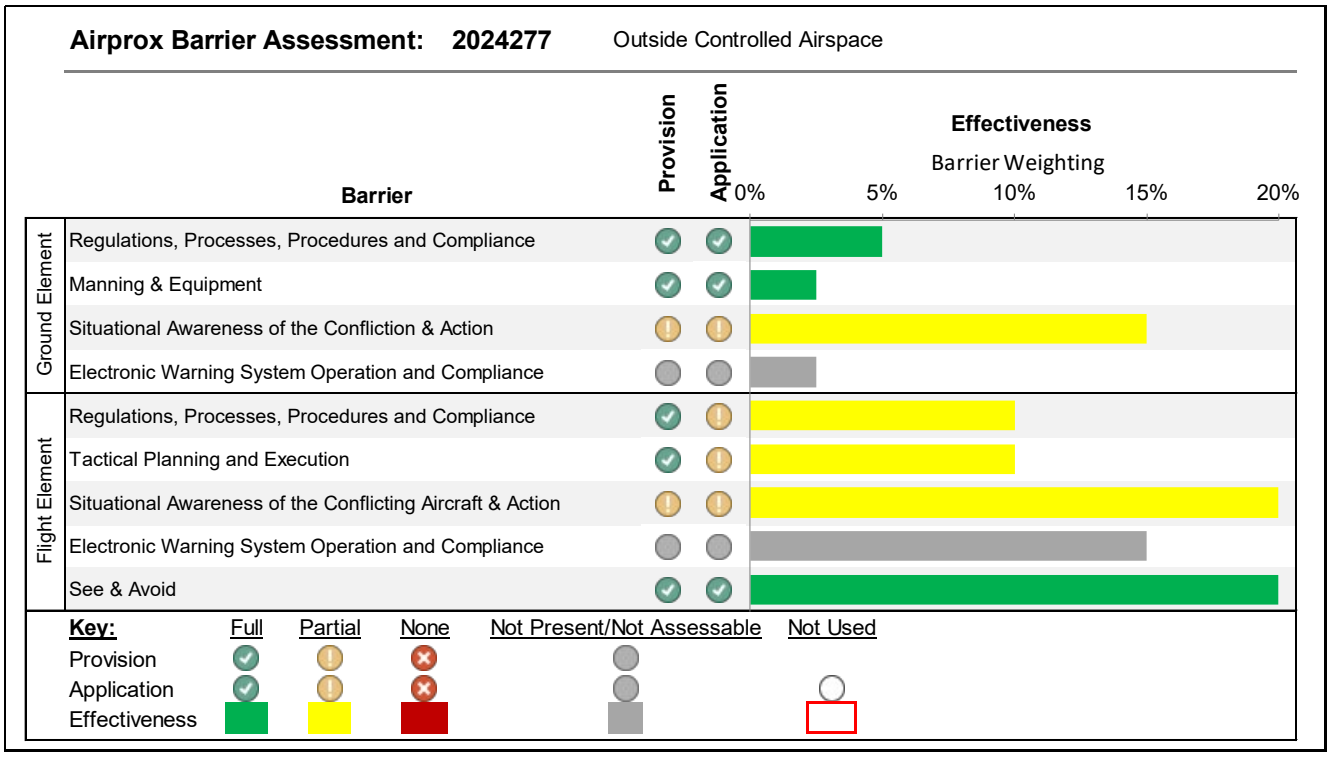
Situational Awareness of the Confliction and Action were assessed as **partially effective** because the Wellesbourne AFISO had inaccurate situational awareness of the position of the PA28.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the PA28 pilot had not appropriately followed the published joining procedures for Wellesbourne.

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot, having made a non-standard join, did not then conform with the pattern of traffic as formed by the C150 pilot.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the C150 pilot had gained only generic situational awareness of the position of the PA28.



[3] The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.