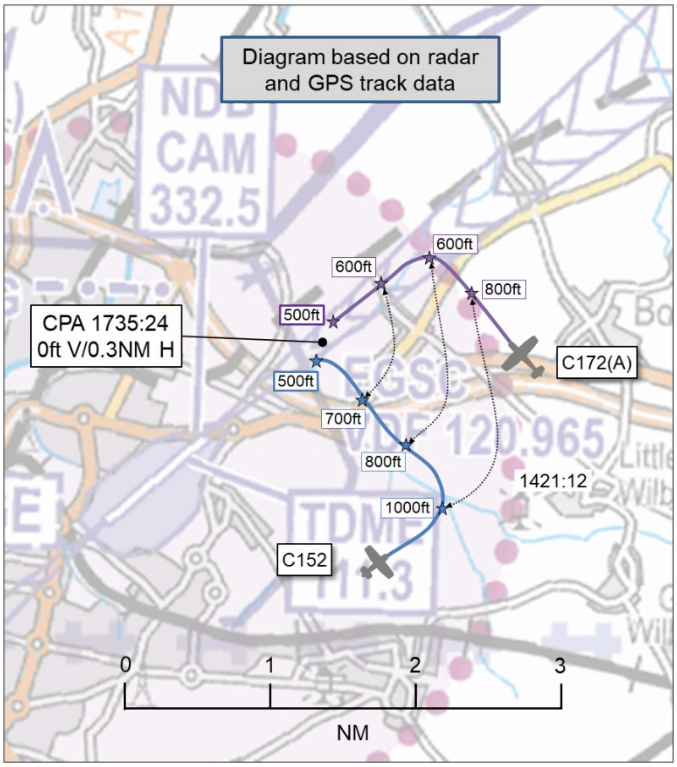
AIRPROX REPORT No 2025239

Date: 13 Nov 2025 Time: 1735Z Position: 5213N 00013E Location: ivo Cambridge Airport

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	C172(A)
Operator	Civ FW	Civ FW
Airspace	Cambridge ATZ	Cambridge ATZ
Class	G	G
Rules	VFR	VFR
Service	ACS	ACS
Provider	Cambridge Tower	Cambridge Tower
Altitude	500ft	500ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White, blue	White, blue stripes
Lighting	Nav and landing.	Strb, nav, ldg.
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude	600ft AGL	600ft-700ft AGL
Altimeter	QFE	QFE
Heading	320°-230° turning	230°
Speed	75kt	65kt
ACAS/TAS	Not fitted	Not fitted
	Separation at CPA	
Reported	Not seen	30ft V/500m H
Recorded	0ft V/0.3NM H	



THE CAMBRIDGE CONTROLLER reports that they were working as the ADI ATCO with 3 aircraft in the circuit and 1 instrument arrival. [The C152 pilot] was on a first solo circuit at night who was instructed to report final number 2, following [C172(A) c/s] turning base leg. [The C152 pilot] reported visual and confirmed to report final number 2. The [C152] pilot had previously flown wide circuits (turning base leg approximately on the eastern edge of the ATZ). They were visual with all aircraft throughout. As [the C152] was about to turn final, they checked the ATM and noticed that the [C152] had positioned on base leg, inside [C172(A) c/s], and was about to turn final ahead. They would estimate the lateral distance was, maybe, 0.2NM, from the ATM, with a vertical distance of, maybe, 100ft. They immediately instructed [the C152 pilot] to go around and climb immediately. They then passed Traffic [Information] to [the pilot of the C172(A)] who confirmed they were visual with [the C152] ahead of them. The [C172] landed safely approximately 1min later and [the C152] landed safely at 1741. The airport was closed at 1750 once all other aircraft had landed and parked up.

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

THE C152 PILOT reports that visibility was in excess of 10km, with a light north-westerly wind. It was official night and RW23 was in use. In addition to their own, there were two other aircraft in the circuit, with a Mooney [pilot] conducting an instrument approach on RW23. They were in [C152 c/s] with the intention of flying their first night solo circuit, as part of their night training syllabus. Their supervising instructor was observing them from the control tower. While flying on the left-hand downwind leg for RW23, they had completed their pre-landing checks and were instructed by the Tower controller to report final, number 2, following a company C172. Following this instruction, they looked out for the traffic and saw company C172(B) on final. As they were visual with [what they believed to be] the number 1 [C172(B) c/s] aircraft, they proceeded to turn left base and configured their aircraft to land. Having realised that the aircraft ahead of them [C172(B) c/s] was no longer a factor, they then turned onto final approach with the intention to land. ATC then instructed them to go around. A go-around was promptly performed and they established the aircraft back into the left-hand circuit and the flight finished

with an uneventful circuit and landing. Upon completion of this flight, it was brought to their attention that they had unknowingly turned in front of C172(A) [c/s], which was also in the circuit ahead of them, but had flown a longer downwind, which resulted in a wide base leg and long final. In reality, this was the aircraft they were told that they were number 2 to. Having been told that they were number 2, they did not look for this particular aircraft [C172(A) c/s], as they had already identified what they thought was the only aircraft ahead of them, [C172(B) c/s] on final.

THE C172(A) PILOT reports that they believed there were multiple small factors that added up to this particular event. They were teaching Ex.20, Night, in C172(A), sat in the right seat with their student in the left seat. They were conducting night circuits under ATC control. Also in the circuit was the C152, [piloted by] a student [sic] doing their first night solo circuit, having done dual circuits with their instructor just beforehand. There was also another C172(B) with an instructor and student on board in the circuit, a Mooney [c/s] on instrument approach and a Cirrus inbound from the north-northwest, looking to join for RW23. So, at the busiest period, there were 3 [aircraft] conducting circuits, 1 on the ILS and 1 aircraft just outside the ATZ, in the following order and rough spacing:

1. [The Mooney] on short final,
2. [C172(B) c/s] on base,
3. [C172(A) c/s] downwind,
4. [C152 c/s] turning crosswind,
5. [Cirrus c/s] approximately 3NM-4NM northwest to join.

[The pilot of the Cirrus] was told to join right base for RW23, routeing via Waterbeach, then [C172(B)] was given a late landing clearance due to [the Mooney pilot] requiring a backtrack to vacate the runway. At this point, their student in [C172(A)] with them had already extended their downwind a bit past their standard taught turning point, to allow for separation to [C172(B)]. Then, just as they were turning base, [the pilot of the C152] called downwind to land. At that moment [C172(B)] had not yet touched down but was close to doing so. ATC told [the pilot of the C152] *"report final number 2, following company 172 on base".*

They could see exactly where things started to go wrong, as it was this moment that [the C152 pilot] likely looked left, seeing [C172(B)] about to touch down, and perhaps missing the *'on base'* part of the call from ATC due to pre-landing check workload and general student solo stress, believed that [C172(B)] was actually [their aircraft, C172(A)], just about to touch down, and that [the C152 student] was now about to become number 1 to land. Had ATC reported the words *"becoming number 2"* (so implying [the C152] was number 3 at present) like they normally do, instead of just *"number 2"*, that might have aided [the C152 student's] situational awareness in the moment, but perhaps it was hard to visually gauge an aircraft's touchdown on RW23 at night from the Tower.

[The pilot of the Cirrus] had also then called ATC to state they would orbit/hold over Waterbeach, which is north of the field, instead of joining base – they could obviously tell it was busy and made a wise decision themselves to remain clear. [The C172 pilot/instructor noted that]*, 'if you are on base, an aircraft positioned at Waterbeach at night would appear at roughly your 1 o'clock'*, so [the C152 student], after turning base, could have easily mistaken them in [C172(A)] (now on final), for [the Cirrus], which was holding at Waterbeach, as both would appear at roughly 1 o'clock position to the pilot of [the C152], as distance to traffic can be harder to gauge at night without much experience.

On final, after their own student had configured the aircraft for landing, they were about to prompt them to make their *'final'* call when they spotted [the C152] on base at their 10/11 o'clock and about 100ft higher than them. [The C152 pilot] having turned base a bit earlier than is their standard taught circuit pattern, meant they were also higher than usual for that point as well. In [the C172(A)] they were configured full flap at 65kt to land, and they quickly gauged that [the C152], likely still doing 70-80kt with only 2 stage flap, would turn in front of them, and be carrying more speed so separation would increase; nevertheless, they immediately took control from their student as they pointed out the traffic to them. They briefly considered a right-hand orbit for spacing, but knew that [the Cirrus] was holding just north of them so decided against it. They knew [that the pilot of the C152] was a student on a first night solo, so they were just about to call ATC to announce that they would 'break off approach' and sidestep right,

so as not to startle or panic [the C152 student], but ATC then jumped in and called [for the C152 pilot] to go around. It appeared that [the C152 pilot] was none the wiser to what was happening behind them, so executed a perfect go around and then, once they were safely vertically and horizontally clear of [the C152], they gave their student back control to continue the approach and landing, which was on short final.

From memory, [the Cirrus pilot], having heard the situation, called ATC to announce they were happy to continue holding until [the C152] was on the ground. All aircraft landed without incident. The closest proximity between [the C172] and [the C152] occurred just as [the C152 pilot had] turned onto final, which they estimated was 30ft vertically ([the C172] was lower) and approximately 500m horizontally. [They thought] it was highly unlikely that, at their closest proximity, [the pilot of the C152] would have had any chance of being able to see them on their right-hand side, whilst being higher than them, and in a left hand turn.

The following are the factors they believed may have played a part in the situation.

1. [C152 c/s] – The student's first night solo, with the accompanying workload and stress which could have led to having misheard ATC calls and/or confirmation bias.
2. [C152 c/s] – The student performed a shorter downwind leg than usual (approximately 750m shorter).
3. [C172(A) c/s] – The student performed a slightly longer downwind leg than usual (approximately 750m longer).
4. [The C152 and C172(A)] - the combined 1500m (0.75NM) difference in downwind length allowed for a roughly 30sec reduction in separation.
5. ATC - confusing instruction of *"number 2"* to [the C152 student pilot] when [C172(B) c/s] had not yet touched down[1] and [C172(A)] was on base.
6. ATC – perhaps slow to spot the convergence of [the C152 and C172] on their radar screen, as the go-around call was not until [the C152] was completing their turn onto final, approximately 60sec after [the C152 pilot] began their turn onto base leg, where the convergence may have first been able to have been spotted.
7. Similar call signs when shortened – [an example was provided], perhaps clearances misheard?
8. General - Night operations and training, limited by the short ATC night opening period which crams all night training and GA traffic into a 60-80min period (shortened further as official night gets later), with all [pilots] wanting to make the most of night flying and so wanting to land as close to 1750 as possible (ATC closure is 1800 but ATC implemented an 'on blocks' latest time limit of 1750 to make sure their opening times are strictly complied with) - it is a bottleneck that could be solved by home-based aircraft being allowed to use the pilot-controlled lighting (PCL) outside ATC hours.

[They explained that they had] selected the assessment of risk of collision as 'Low' because, as an instructor, they try to keep a very detailed mental picture and constant situational awareness of all aircraft, and a good lookout. However, had their student in [C172(A)] also been solo that evening, they would perhaps consider that the risk would have been leaning towards medium, simply because of any student pilot's lack of experience, increased mental workload and reduced situational awareness, but either way, ATC still made the 'go-around' call and [the pilot of the C152] executed the go-around immediately and safely, and everyone landed without incident.

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

Factual Background

The weather at Cambridge Airport was recorded as follows:

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METAR EGSC 131720Z VRB02KT CAVOK 12/10 Q1007
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[1] UKAB Note: The C172(B) pilot had been requested by ATC to go around and had, therefore, not touched down on this occasion.

Analysis and Investigation

Cambridge Airport

Sequence of Events.

An Airprox was filed by the ADI ATCO after an aircraft (Cessna 152) positioned ahead of another aircraft, Cessna 172[A], on final approach. The aircraft had been sequenced and the pilot of [the C152] reported the aircraft ahead in sight. The pilot of [the C152] then positioned behind an aircraft which was on very short final on a missed approach, instead of the aircraft reported to be number one which they had been following in the circuit, [C172(A)].

The visual circuit was active with three aircraft , two C172s and a C152. Another aircraft, [a Mooney] had just landed following an instrument approach, and a [Cirrus] was rejoining from the north.

[C152 c/s] - C152 student pilot – first solo night circuit.

[C172(A) c/s] – student with instructor.

UKAB Note: A full transcript was provided to the UKAB and CAA ATSI, from which pertinent timelines were constructed and incorporated within both the Cambridge Airport and CAA ATSI reports (see below).

Investigation - analysis of event evidence.

Figure 1 shows the position of the aircraft in the circuit when [the pilot of C172(B)] was instructed to go around at 1733:18.

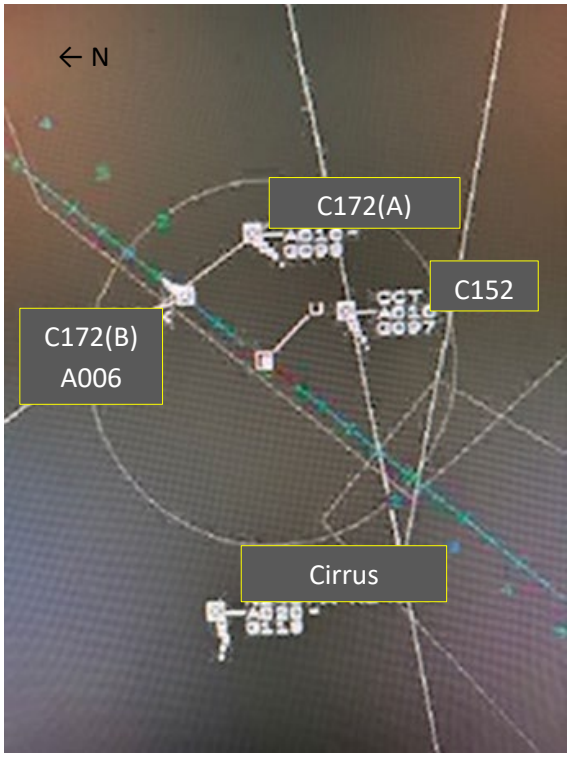


Figure 1 – screenshot at 1733:18

[The pilot of C172(A)] was instructed to report final number one and [the pilot of C152 c/s] was instructed *'you're number two, following the Cessna 172, on a left-base leg now, just turning left base.'* [The pilot of the C152] reported traffic in sight. [The pilot of the C152] was a first time night solo student.

[C172(B)] was indicating A006 and was within 0.5NM from touchdown, abeam [the C152] on their left-hand side. [C172(B)] was approximately 2NM ahead in the circuit at the end of the downwind leg.

[The C152] was seen to commence their turn towards final at 1734:28. (Figure 2). [The C172(A)] was turning towards a 2NM final.

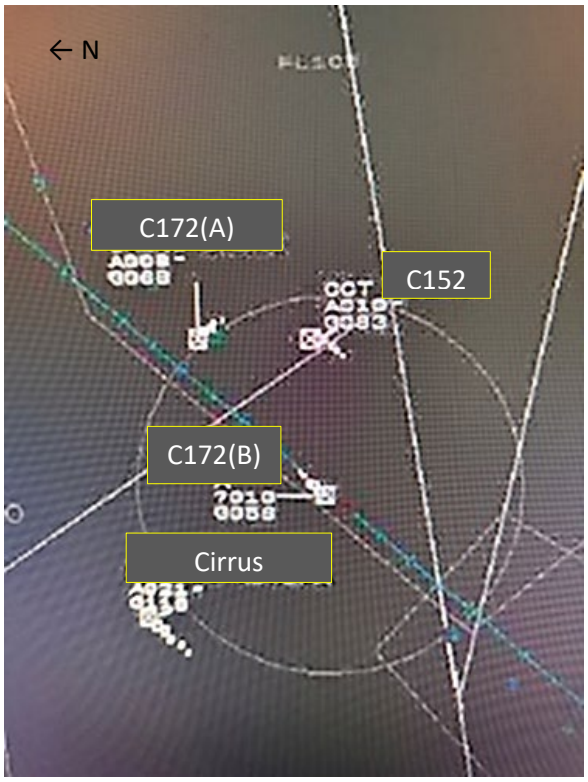


Figure 2 – screenshot at 1734:28

At 1734:48 [The pilot of C172(A)] was cleared for touch and go (Figure 3) The ATM shows [C152 c/s] routeing towards a 1NM final inside [C172(A)].

Figure 3 – screenshot at 1734:48

At 1735:17 [the pilot of the C152] was instructed to go around as the ATCO became aware of their positioning error (Figure 4).

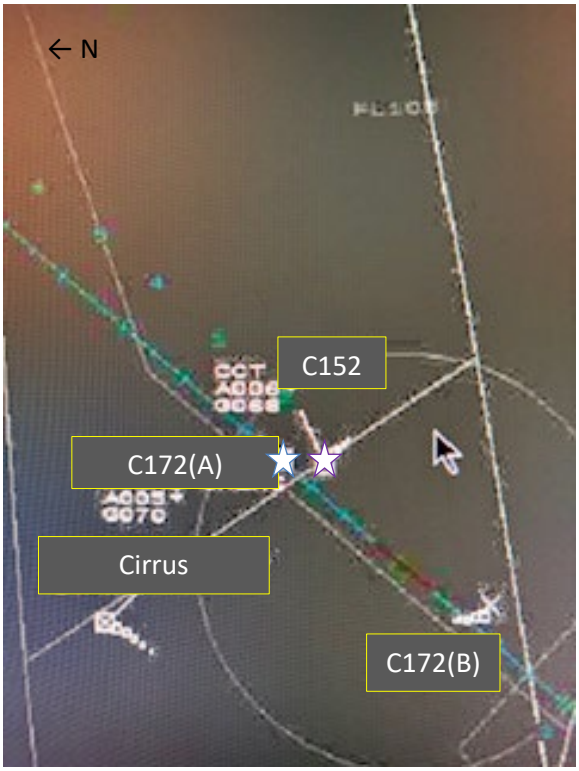


Figure 4 – screenshot at 1735:17

The initial missed approach for [C172(B)] was caused by the previous landing aircraft, [Mooney c/s], being slow to vacate RW23. [The pilot of the Mooney was] issued with backtrack and vacate instruction at 1732:55. There were several transmissions between [the Tower controller] and [the Mooney pilot] surrounding the parking area for the aircraft between 1733:49 and 1734:16.

No mention of the position of [C172(B)] was made to [the pilots of either C172(A) or the C152] following the go around instruction. However, the ATCO did give the correct position in the circuit to [the pilot of the C152] who had been following [C172(A) c/s] in the circuit previously and so had no reason to suspect that the aircraft stated as number one would be mis-identified by [the pilot of the C152].

[The pilot of the C152] mis-identified [C172(B) c/s] for [C172(A) c/s] and turned onto final behind the aircraft they believed to be number 1 to them.

[The pilot of C172(A) was] issued with touch and go clearance at 1734:48. Figure 3 clearly shows that [the C152] had turned inside [C172(A)] as this instruction was issued. The controller was not aware of the situation until the go-around instruction was issued to [the pilot of the C152] at time 1735:17.

It is clear that the ATM had not been used effectively to assist in monitoring traffic in the circuit.

The Tower ATCO reacted as soon as they became aware of the situation. The instruction to send [C152 c/s] around was correct. This aircraft was higher than [C172)A)] and ahead in the sequence. Traffic Information was passed to [the pilot of C172(A)] on [the C152]. 'Avoiding action' was not used in the go-around instruction, although the [pilot of the] aircraft was instructed to climb immediately. The controller elected not to use 'avoiding action' due to the low hours of the pilot (first night time solo).

The initial report contained interviews from the pilots involved and from the Tower ATCO. There are references in these pilot interviews to the runway edge lighting being difficult to see from the

downwind leg. The runway lights at Cambridge are compliant and are checked in accordance with regulatory requirements. This topic was raised at the Local Runway Safety Committee meeting (Feb 26) and can be discounted following positive reports from several crews. There are multiple roads around Cambridge airport which generate ambient light around the airfield, however, the runway lights are reported as being visible to pilots.

A difficulty with depth perception had also been mentioned in the interviews. The unit has an ATM which can be used to provide information to [pilots] on the position of other aircraft in the circuit or carrying out an instrument approach. Detailed Traffic Information and regular updates on an aircraft's position in the circuit are necessary at night to assist in this situation, particularly for inexperienced pilots. Night circuits are carried out regularly in the winter months without incident.

[The pilot of the C152] was a first time night solo student who had reported in their interview that it was more difficult to judge the position and distance of lights at night. They acknowledged that they had mis-identified the number one aircraft and had not been aware of this until they had landed and been advised by their instructor. They also acknowledged the importance of listening to the position of traffic in the circuit, not just their number in the sequence, following this event.

Contributory Factors.

The ADI ATCO had been in position for approximately an hour and a half at the time of the incident and was working in moderate intensity and moderate-to-high complexity throughout the session.

As reported in the initial investigation, there were several requests from pilots to adjust the Airfield Ground Lighting and to use the ALDIS lamps for practice, which increased the complexity and, therefore, the ATCO's workload. This had occurred in the hour prior to this event but this training had been completed at 1720.

The subsequent action taken by the ATCO was correct. The ATCO was withdrawn until permission was granted by the UCC and MATS to return to active duty.

The ATM could have been better used to assist the controller in providing information to [pilots] on the position of other aircraft in the circuit and to alert the controller to the event as it occurred. It is vital that the scan out of the window is maintained in the VCR, however, it would be beneficial to fully utilise the equipment available.

Conclusion.

1. [The pilot of the C152] mis-identified the aircraft to follow. This incident was caused by a student pilot mis-identifying the aircraft ahead of them, and then turning out of sequence onto final approach ahead of the aircraft they should have been following in the circuit.

2. [The pilot of the C152] did not hear the position of aircraft to follow. The ADI ATCO had correctly informed the pilot of their position relative to that of the preceding aircraft, but it is understood that the cockpit workload was high and the pilot missed the position of the aircraft which was advised as being number one to them.

3. Traffic Information on the aircraft which was going around, [C172(B) c/s], was not passed to [either the pilot of C172(A) or C152]. This would have alerted [the pilot of the C152] to exactly which aircraft they were following. There was nothing to suggest to the ATCO that [the pilot of the C152] would stop following [C172(B) c/s], however, this may have prevented the mis-identification of traffic in the sequence.

The pilot was low hours, on their first solo night circuit and believed that the aircraft they were instructed to follow was on a short final.

During the subsequent interview with the student pilot, they stated that they have learnt from the event and will now pay more attention to the position information provided by the ATCO and will transmit if they are unsure as to which aircraft they have been instructed to follow.

The incident was correctly handled by the ADI ATCO, whose actions were prompt and correct, once the situation became apparent to them. There was no reason for them to suspect that [the pilot of the C152] would not continue to follow [C172(A)] ahead of them in the circuit.

The use of 'avoiding action' phraseology would not have been inappropriate in this instance, particularly as it was deemed close enough to be filed as an Airprox. The ATCO was asked if they had considered using 'Avoiding Action'. They felt it was not appropriate to use with the first time night solo pilot.

Use of the ATM to monitor the position of aircraft in the circuit, particularly at night, may have alerted the controller to the presence of [the C152] out of the expected sequence following them mis-identifying [C172(B) c/s as C172(A)].

Recommendations.

Communication – Open days – The flying club [members] have been invited to visit ATC for informal discussions and familiarisation with the team.

Hot Topics - An email to be sent to all ATCOs highlighting best practice in general operations and in relation to recent safety events. A discussion on the use of avoiding action to be instigated as part of lesson learning.

Topics highlighted in the interviews - Topics such as lighting, depth perception etc were raised in the safety-related meetings in February 2026, raising awareness within the pilot community and at the flying school. Education pieces, including visits to ATC, will raise awareness of the importance of listening to position reports and good airmanship and RT discipline etc.

CAA ATSI

Synopsis

The visual circuit was active with 3 aircraft – two C172s and a C152. Another aircraft had just landed having completed an instrument approach, and [a Cirrus] was rejoining from the north. C172(A) had a student and instructor on board, the C152 was being flown by a solo student pilot. The Cambridge Tower controller reported being "*visual with all aircraft throughout*". A serviceable ATM was available for their use.

At 1733:18, due to the previously landing aircraft being slow to clear the runway, the controller instructed the pilot of C172(B) to go around. They then instructed the [pilot of] C172(A) to report final, advising the pilot that they were 'number one' which was read back correctly by the pilot. Then, at 1733:40, the controller advised the C152 pilot that they were "*Number 2, following the Cessna 172 on base leg now, just turning left base"* to which the C152 pilot replied *"Number two – traffic in sight"* (Figure 5).

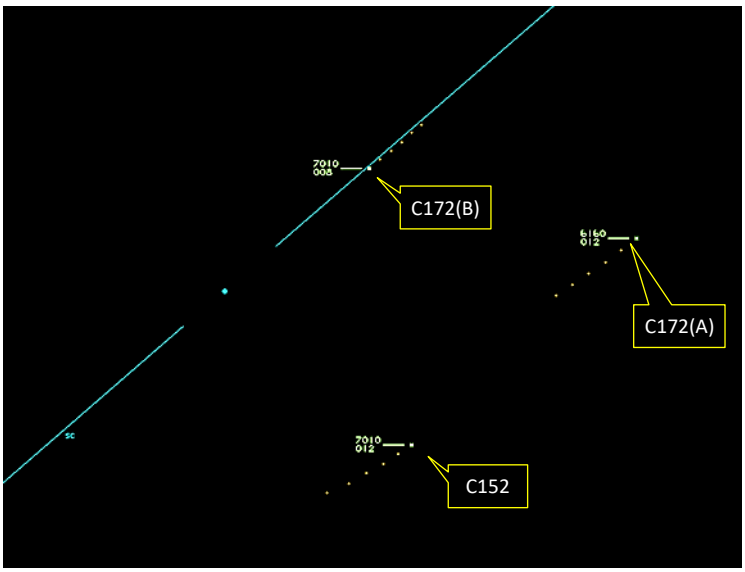


Figure 5 – 1733:40

The controller was then occupied between 1733:50 - 1734:20 dealing with the parking arrangements for the previously landing aircraft (Figure 6).

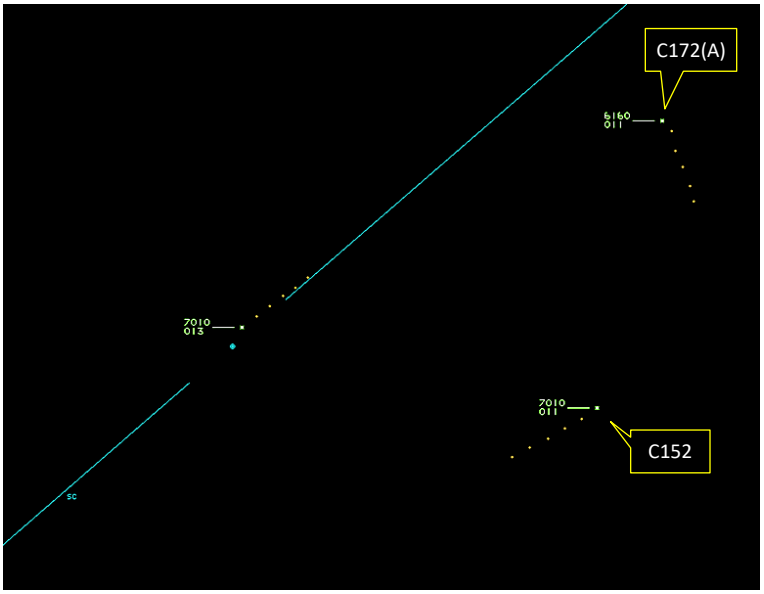


Figure 6 – 1734:20

At **1734:34** the C152 was seen on the area radar replay used in this investigation to have turned onto left base, inside [C172(A)] (Figure 7).

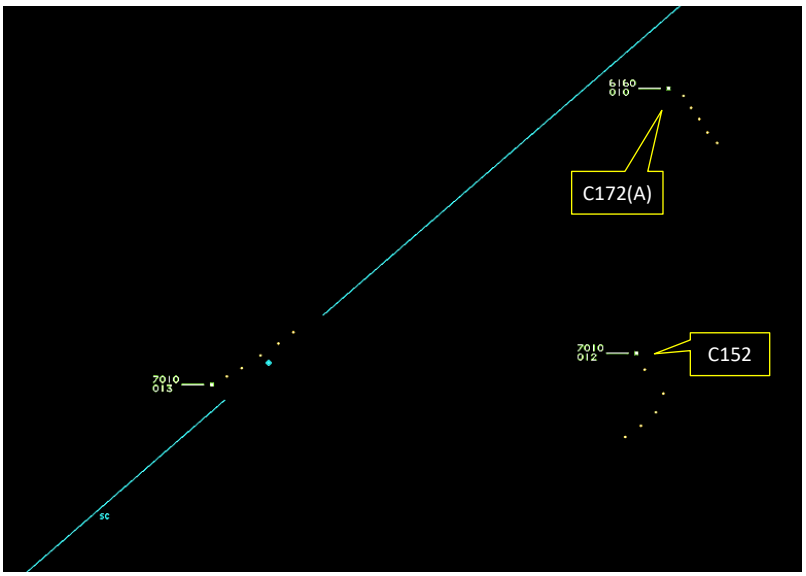


Figure 7 – 1734:34

At **1734:48** the controller cleared [the pilot of] C172(A) for a touch and go (Figure 8).

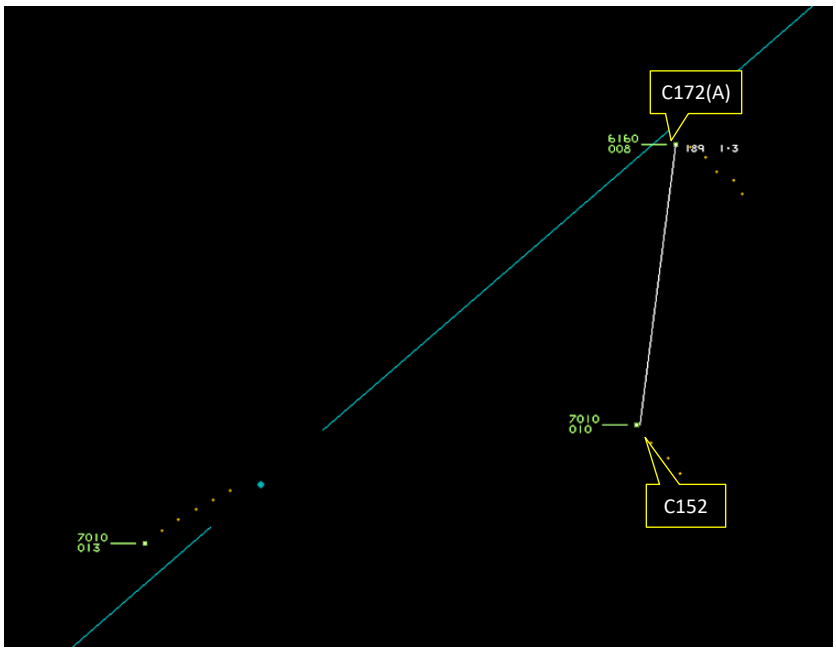


Figure 8 – 1734:48

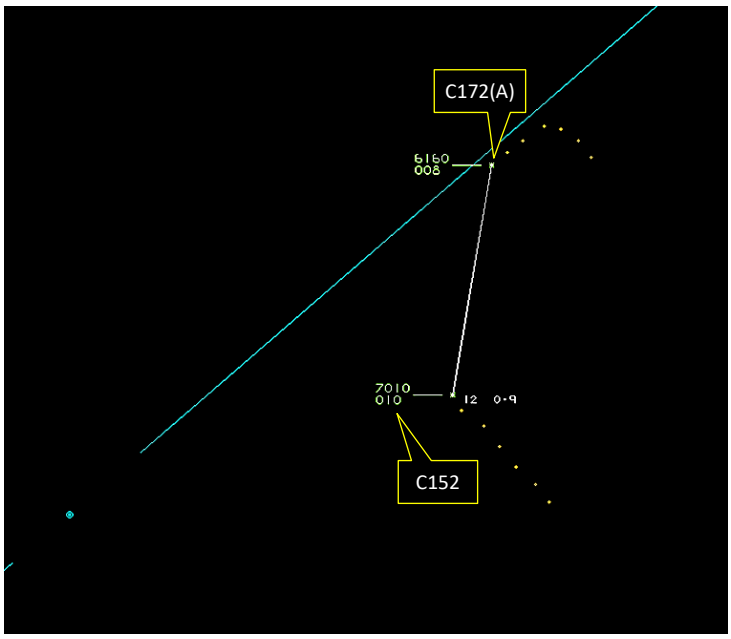


Figure 9 – 1734:58

At **1735:12** the pilot of the [Cirrus] called at the previously designated point of Waterbeach, a disused airfield north of Cambridge Airport, but the controller ignored that call and instead, at **1735:18**, instructed the pilot of the C152 to *"go around. I say again go around – acknowledge. Climb immediately"* (Figure 10).

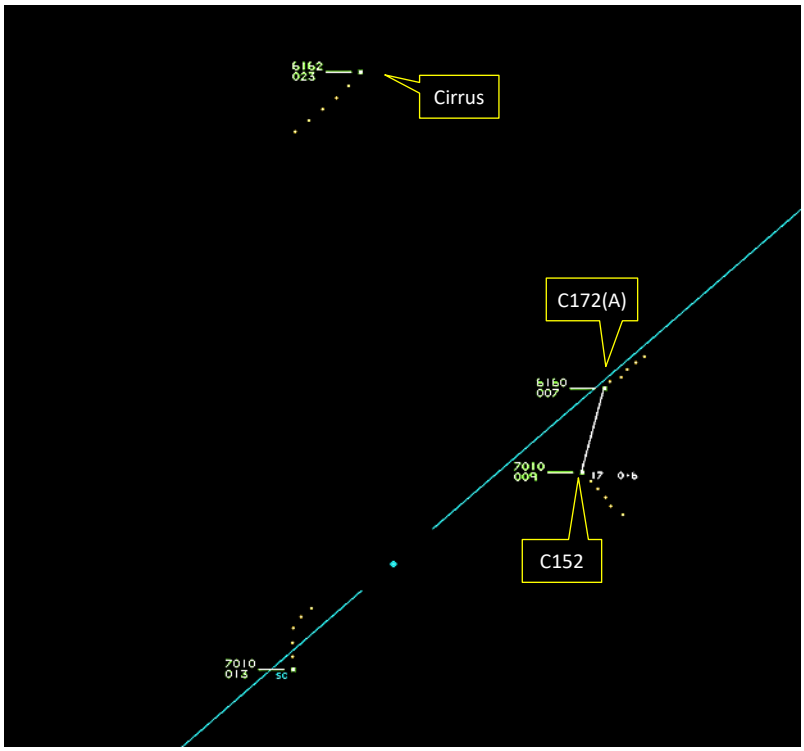


Figure 10 – 1735:12

CPA occurred between **1735:18-1735:25** (Figures 11 & 12).

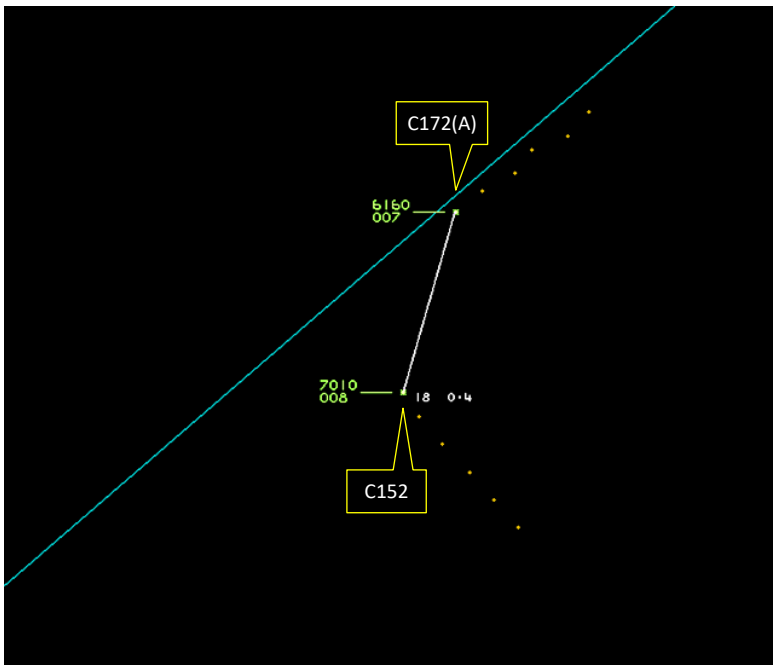


Figure 11- 1735:18

At **1735:25** the controller asked the pilot of C172(A) if they were visual with the C152 *"just off your left-hand side"* which the C172(A) pilot confirmed (Figure 12 also).

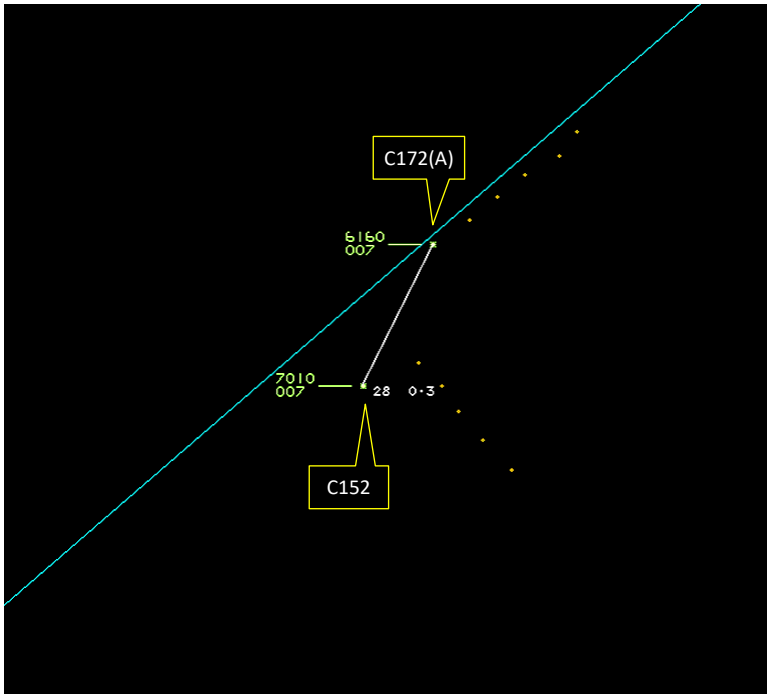


Figure 12 – 1735:25

Analysis.

The Tower controller advised the pilot of the C152 at **1733:40** that they were number two, instructing them to follow the 'C172'. The Traffic Information stated that C172(A) was on or just turning left base, whereas the area radar replay showed C172(A) to be downwind and was not observed to have commenced their base leg turn until **1733:50**. There was no additional information passed to either pilot on C172(B) which was still on final approach ahead of both other aircraft in the circuit.

The written report by the C152 pilot confirms that they did mistake C172(B), which they were visual with, for the aircraft they were to follow, and that they were not aware of the presence of C172(A) now on final approach outside them.

When [the pilot of] C172(A) had been cleared for their touch and go at **1734:48**, the C152 was shown on the area radar replay to already be well established on a base leg inside C172(A).

The initial report from the controller confirmed that they had been visual with all the aircraft involved (in the Airprox) and made reference to their use of the ATM when the *"(C152) was about to turn final I checked the ATM and noticed (the C152) had positioned on base leg inside (the C172) and was about turn final ahead".*

When Traffic Information was passed by the controller to the pilot of C172(A), the C172(A) pilot reported being visual with the C152. In their subsequent written report, the C172(A) pilot confirmed that they had been visual with the C152, and that they were already preparing to offer to break off their approach in favour of the C152 when the controller passed the Traffic Information.

The initial unit investigation report mentioned a number of other contributory factors which were queried by ATSI, and which have since been covered-off and dismissed following a further review by unit management.

Conclusion.

Had the Tower controller informed the C152 pilot that they were number 3 when they made their downwind call, and that C172(B) on final approach was going around, and/or that the aircraft to follow was at the *end of the downwind leg* about to turn onto base leg, then the C152 pilot's situational awareness might have been enhanced sufficiently for them to avoid a misidentification of C172(B) as the aircraft to follow.

Had greater use been made of the ATM by the Tower controller, they might have seen that the C152 had turned inside and ahead of C172(A) and have been in a position to resolve the confliction earlier.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were identified using Mode S data. At 1735:14, 12sec before CPA, the Cambridge circuit was seen to be active; the C152 was on base leg and C172(A) was on the final approach. C172(B) was seen going around and the Cirrus was holding at Waterbeach to the north-northwest of Cambridge Airport (Figure 13).

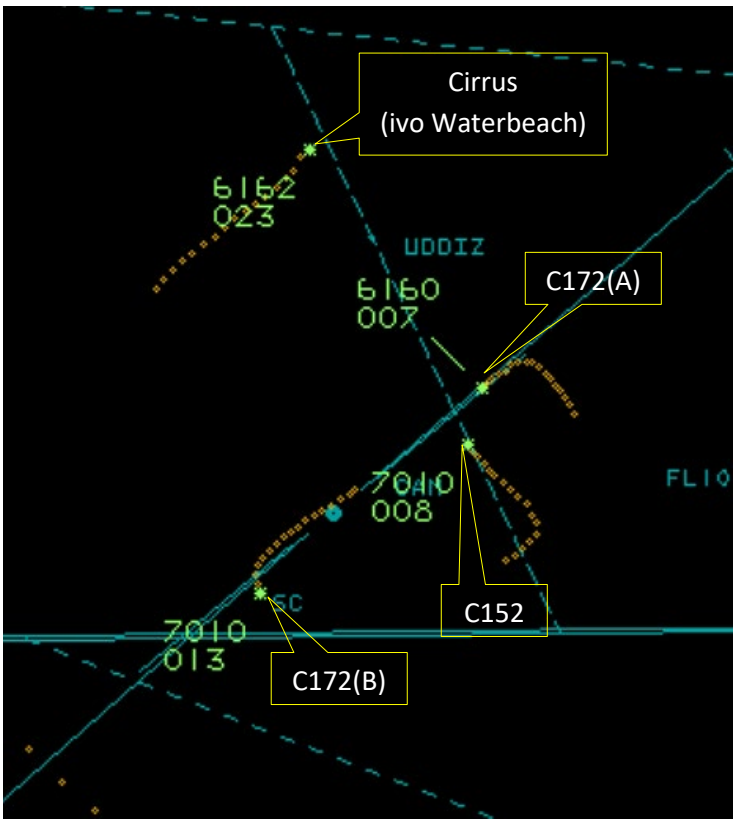


Figure 13 – Time 1735:12

CPA was assessed to have occurred at 1735:26 with 0.3NM lateral and 0ft vertical separation (Figure 14).

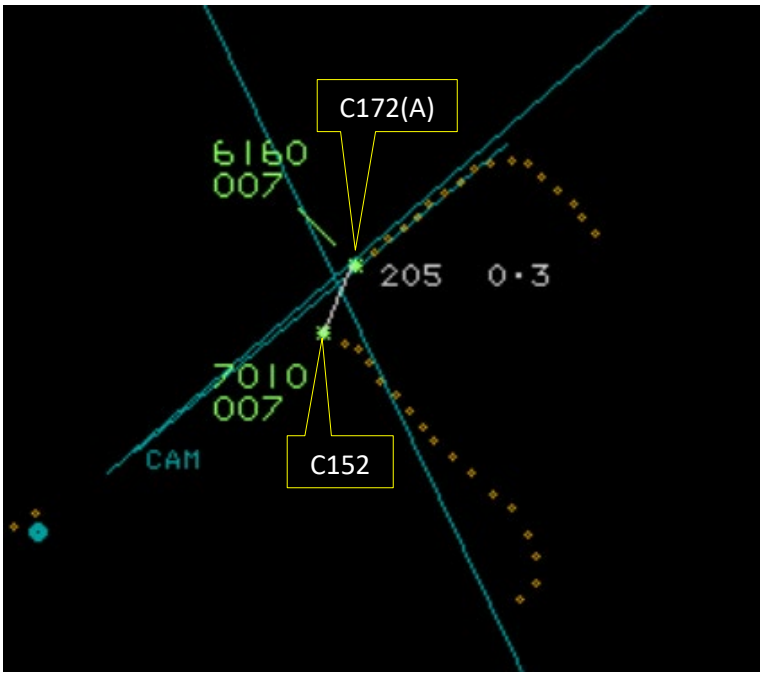


Figure 14 – Time 1735:26

Further analysis of third party tracking software was undertaken. The C152 was detected using ADS-B sources, whereas the C172(A) was not but was seen intermittently using MLAT sources. The pilot of the C152 had also provided GPS track data which was coincident with both ADS-B and radar tracks.

The C152 and C172(A) pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[2] 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.[3]

Summary

An Airprox was reported when a C152 and a C172 flew into proximity on final for RW23 at Cambridge Airport at 1735Z on Thursday 13th November 2025. Both pilots were operating under VFR in VMC at night, and in receipt of an ACS from Cambridge Tower.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data for the flight of the C152, a report from the air traffic controller involved and reports from the appropriate operating authorities. 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.

The Board first looked at the actions of the Cambridge Tower controller, and noted that they had been working with a medium-to-high intensity workload. The Board observed that the instruction given to the C152 pilot regarding the position of the C172 ahead of them for landing had potentially been misleading. Members discussed the differences between the perception of aircraft positions from the controller's viewpoint compared to the perspective-based perception of the pilots, and agreed that the C152 pilot had misidentified the C172(B) which had been initiating a go-around as the C172(A) ahead of them in the sequence. The Board considered that, although the controller had been aware that C172(A) had been about to turn left base, they had incorrectly stated that it had been turning left base when it was still in a late downwind position, its pilot having extended beyond their usual turning point before commencing left base. Members agreed, therefore, that the Cambridge Tower controller had provided inaccurate Traffic Information to the C152 pilot (**CF1**). In addition, the Board felt that the controller could also have passed Traffic Information to both the C172(A) pilot and the C152 pilot regarding the C172(B) going around. Although such calls are not routinely required, members considered that doing so in this scenario could have improved the pilots' mental models of circuit traffic and may have helped them better visualise the evolution of the pattern ahead. The Board also reflected on whether the supervising instructor responsible for overseeing the solo C152 pilot might have been able to assist the controller by drawing attention to the C152's early turn onto left base had they been fully aware of the situation. The Board further noted that the controller had become engaged in directing the pilot of the recently landed Mooney to its parking position. As the parking position had been situated on the opposite side of the tower to the controller's view of the circuit, the Board considered that this task had drawn their attention away from the circuit traffic (**CF4**) and they had not, therefore, been fully monitoring the ATM equipment (**CF3**). The Board noted that the culmination of these factors had meant that the controller had not seen that the C152 pilot had made an early turn onto left base, positioning behind C172(B) and inside C172(A)'s circuit pattern. Members agreed, therefore, that the Cambridge Tower controller had detected the conflict between the C152 and C172(A) at a late stage (**CF2**).

During the wider discussion, the Board considered the operating hours of Cambridge Airport and its ATC service. Members recognised that the limited evening operating period placed pressure on flying schools to complete circuit detail and training flights before closure, which could contribute to high circuit density and an increased workload for both pilots and controllers. The Board discussed whether extending operating hours to accommodate night-flying training could help distribute activity more evenly, reducing peak-time congestion and the perceived "rush" to return before closing time. However, members also noted that any extension of hours would require careful consideration of staffing levels, controller duty-time limitations, and the practicalities of pilots relying on pilot-controlled lighting (PCL).

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome. MAA RA 2307 paragraph 17.

The Board acknowledged that, while such measures could provide operational benefit, they would need to be balanced against these constraints and associated safety considerations.

Turning their attention to the actions of the C152 pilot on their first solo night flight, the Board noted that they had not followed the instructions to sequence, as number 2 to land, behind a company C172 about to turn left base. Members agreed, therefore, that the pilot of the C152 had not effectively executed the instructions from the Cambridge Tower controller (**CF5**). The Board noted that the pilot had misidentified which aircraft to follow, and members agreed that the C152 pilot had had inaccurate situational awareness of the position of C172(A) (**CF7**). The Board recognised that the pilot's imperfectsituational awareness and aircraft misidentification had led them to turn onto an early left base to position behind C172(B), and that this manoeuvre had placed them inside the track of C172(A). Members agreed that the pilot of the C152 had, therefore, not conformed with the pattern of traffic formed by the pilot of C172(A) (**CF6**). The Board noted that it was likely that the C152 pilot's mental model had been such that their concentration had been on the final approach and the observation of C172(B) ahead, stated as *'no longer a factor',* that they had not observed C172(A) on final and to their right. Members agreed that the C152 pilot had not seen C172(A) (**CF9**) and that their inaccurate mental model had consequently prevented them from having assimilated any conflict information pertaining to C172(A) (**CF8**).

Moving their attention to the pilot of the C172, the Board noted that the pilot had been on an instructional flight and had been prepared to manoeuvre away from the C152 whilst being mindful of the position of other aircraft in the vicinity. However, members agreed that the controller had intervened before any such avoidance manoeuvre had been required. The Board observed that, although the C152 pilot had made an earlier than usual turn onto left base, the C172(A) pilot had turned later than expected, having extended downwind to the point of leaving the ATZ. A controller member commented that, although there is a technical requirement to make an RT call when leaving the ATZ, this had neither been an intention nor a contributory factor. Members, nevertheless, agreed that it might have been helpful if the pilot of C172(A) had broadcast their extension of the downwind leg, which could have provided useful situational awareness to both the controller and other circuit traffic.

In concluding their discussion, the Board wished to record their appreciation for the comprehensive and helpful reporting provided by all those involved, noting that the clarity and completeness of the information had materially assisted their assessment. The Board noted that, although the C152 pilot had had innacurate situational awareness of the circuit traffic and had not seen C172(A), the pilot of C172(A) had maintained very good situational awareness of all relevant traffic and had sighted the C152 and had been prepared to avoid it. However, this had been unnecessary because the Cambridge Tower controller, regardless of distractions, had effectively intervened by instructing the C152 pilot to go around. Members agreed that, while safety had been degraded, the effective action taken by the Cambridge Tower controller had meant that there had been no risk of collision. As such, the Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025239			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Human Factors	• ANS Traffic Information Provision	Provision of ANS traffic information	TI not provided, inaccurate, inadequate, or late
2	Human Factors	• Conflict Detection - Detected Late	An event involving the late detection of a conflict between aircraft	
3	Human Factors	• Monitoring of Equipment/Instruments	Events involving an individual or a crew/ team not to appropriately monitoring equipment or instruments	
4	Human Factors	• Task Monitoring	Events involving an individual or a crew/ team not appropriately monitoring their performance of a task	Controller engaged in other tasks

	Flight Elements			
	• Tactical Planning and Execution			
5	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
6	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			
7	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
8	Human Factors	• Understanding/ Comprehension	Events involving flight crew that did not understand or comprehend a situation or instruction	Pilot did not assimilate conflict information
	• See and Avoid			
9	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: C.

Safety Barrier Assessment[4]

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

Ground Elements:

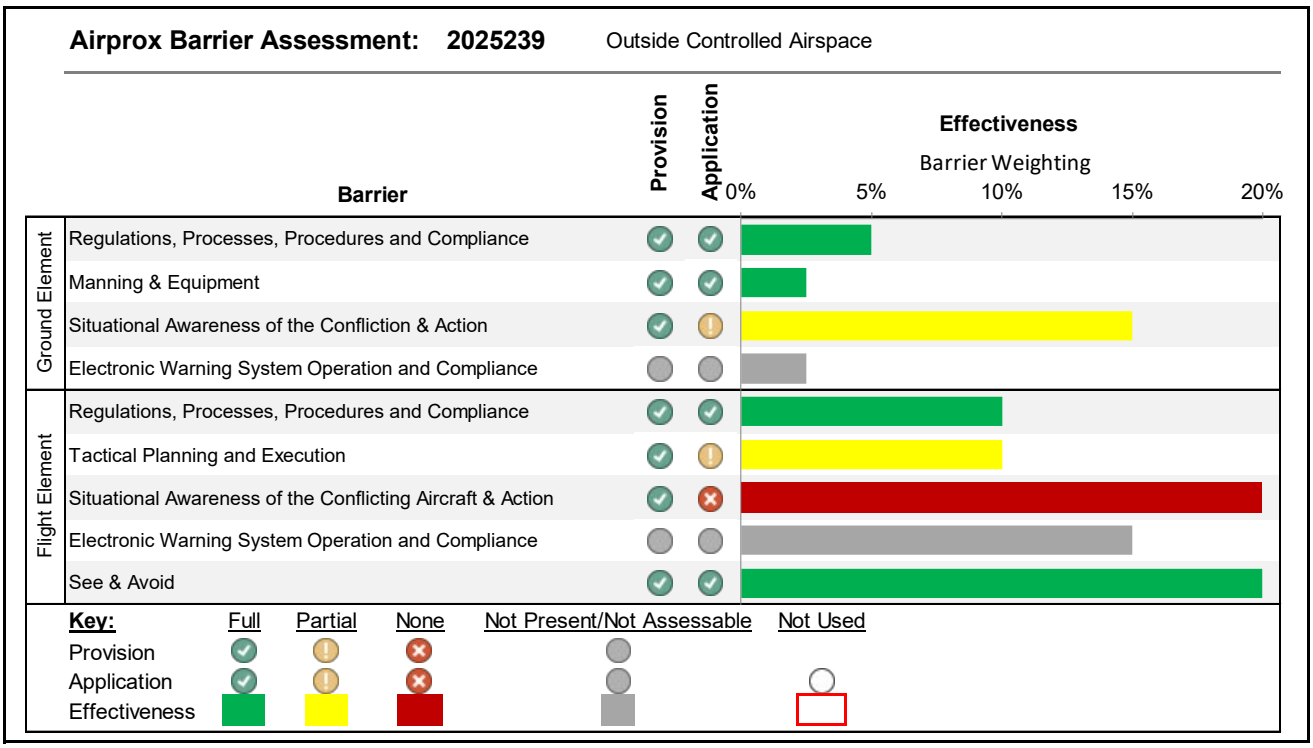
Situational Awareness of the Confliction and Action were assessed as **partially effective** because the controller passed inaccurate Traffic Information on C172(A) to the pilot of the C152, and detected the conflict late after being engaged in another task.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the pilot of the C152 had neither conformed with the pattern of traffic already formed nor correctly followed the controller's instructions.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C152 pilot had inaccurate situational awareness of the position of the C172 that they were to sequence behind.

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


Airprox Barrier Assessment: 2025239
Outside Controlled Airspace
Barrier
Provision
Application
Effectiveness
Barrier Weighting
0%
5%
10%
15%
20%
Ground Element
Regulations, Processes, Procedures and Compliance
Manning & Equipment
Situational Awareness of the Confliction & Action
Electronic Warning System Operation and Compliance
Flight Element
Regulations, Processes, Procedures and Compliance
Tactical Planning and Execution
Situational Awareness of the Conflicting Aircraft & Action
Electronic Warning System Operation and Compliance
See & Avoid
Key:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness