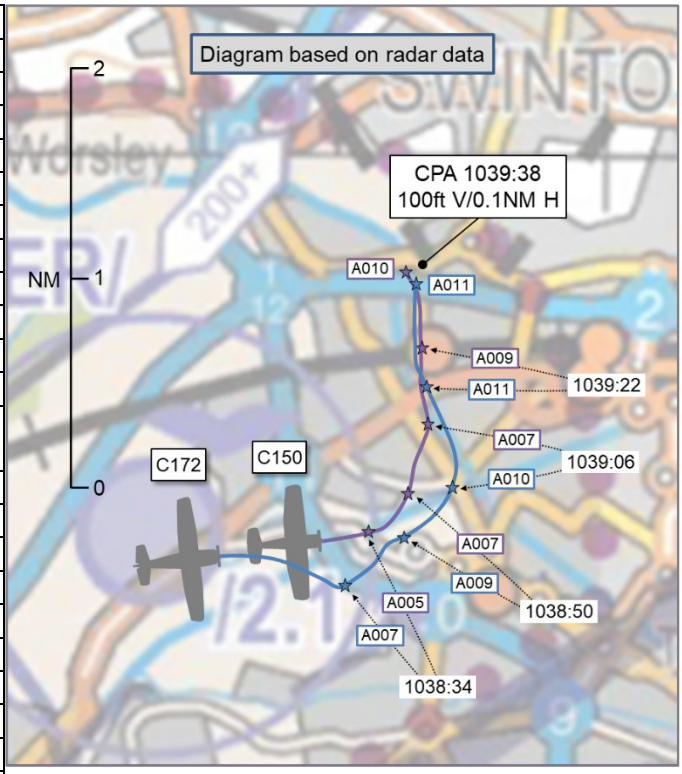
AIRPROX REPORT No 2022208

Date: 06 Sep 2022 Time: 1040Z Position: 5329N 00221W Location: Manchester Barton ATZ

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	C150
Operator	Civ FW	Civ FW
Airspace	Barton ATZ	Barton ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Barton Information	Barton Information
Altitude/FL	1100ft	1000ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White, yellow, blue	Red, white
Lighting	Landing, taxy, nav, strobes, beacon	Beacon, landing, nav
Conditions	VMC	VMC
Visibility	5-10km	5-10km
Altitude/FL	1000ft	NK
Altimeter	QFE (NR hPa)	QFE (1009 hPa)
Heading	350°	350°
Speed	110kt	65kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	75ft V/0NM H	100ft V/100m H
Recorded	100ft V/0.1NM H	



THE C172 PILOT reports that they were on a 'revalidation' flight. The weather was fine in the circuit but appeared worse above circuit height so they changed their plan for a local flight and agreed to remain in the circuit. There was only one other aircraft in the circuit at the time. It seemed to be doing particularly wide circuits and, due to this and the higher performance of [the C172], they caught it up on final after a few circuits. At 200ft they went-around, positioning on the deadside.

[In their subsequent analysis of the Airprox, the C172 pilot referred to Barton's go-around procedure (as published in EGCB AD 2.22 section 2h) and opined that there appear to be two variants of the procedure which they referred to as 'Variant A' and 'Variant B'. The C172 pilot explained their understanding of these variants:]

'Variant A': position to the dead-side far enough to see the traffic being overtaken, remain visual with it until it is overtaken, then continue on runway track to 1000ft and then turn crosswind. 'Variant B': turn towards the dead-side, continue until significantly away from the extended centreline, then turn back to runway track (but still away from the extended centreline) to 1000ft and then turn cross-wind. Both variants appear to be compliant with the procedure as written, but are significantly different in practical effect. [The C172 pilot further explained that] "The Skyway Code (version 3) says *'Cross to the dead side as you climb away and rejoin the circuit on the cross wind leg or as appropriate*' which always appears consistent with both variants, with emphasis on *"or as appropriate"* in the case of 'Variant A*',* Where, having overtaken a slower aircraft, re-joining on the climb-out seems appropriate."

[In the opinion of the C172 pilot], the key thing is that neither the Skyway Code nor Barton's published procedure specify how far over to the dead-side the pilot is expected to manoeuvre. Though there are of course an infinite number of distances possible, the practical difference is that 'Variant A' does not add any significant extra track distance, whereas 'Variant B' does.

[At the time of the Airprox, the C172 pilot] had been unaware of Variant B, and performed Variant A. There was some confusion as their instructor had expected them to perform 'Variant B' and instructed them accordingly. After reaching 1000ft they turned crosswind. As is their habit with all turns, they believe they checked for traffic first, including lifting the (high) wing, but saw none. The 'Tower' then called to ask if they were aware of the other traffic. They did not have the other traffic in sight and could not locate it so replied 'negative'. Shortly after, the other aircraft became visible as it emerged from underneath them, to their left, and in an increasing bank as it initiated its [left] turn to downwind. They estimate that it emerged 50-100ft directly beneath them. Since the other aircraft had already turned downwind, extending the crosswind leg was all that was necessary to restore separation.

As far as [the pilot of the C172] had been aware, the other aircraft had followed a correct departure following their touch-and-go, in turning crosswind and then downwind. [As the C150 also has a] high wing, [the C172 pilot] believed that [the pilot of the C150] would not have seen [the C172], or could have been expected to have seen it. The problem seems to be that the crosswind legs had coincided, both in their ground track and in time, with little opportunity to have sighted the other aircraft climbing from below for most of Variant B (they were either behind or were obscured below the floor of the aircraft). The only thing that averted the collision was thankfully a minor and favourable variance in circuit height, which is likely to have resulted from minor differences in altimeter tolerance and pilot accuracy.

[In the subsequent analysis of their actions, the pilot of the C172] was concerned that for the scenario they encountered, 'Variant B' appeared to be dangerous because it needlessly added an extra opportunity for conflict on the crosswind leg by giving the slower aircraft an opportunity to catch up while the aircraft going-around takes the extended ground track round. [The pilot of the C172 explained further] that this resulted in a significant risk of collision and that 'Variant A' would have avoided this risk by ensuring that the overtaking aircraft would be well ahead of the overtaken aircraft, and separation would be pretty much guaranteed in any similar situation where a higher performance aircraft is going around with a lower performance one on final.

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

THE C150 PILOT reports that they had just performed a touch-and-go at Barton on RW08. [The C172 pilot] behind had performed a go-around as they were still occupying the runway during the touch-and-go. As [the C150 pilot] was climbing on the crosswind leg they heard Barton Information inform [the C172 pilot] of the [C150 pilot's] position and ask if they were in contact. They did not have visual contact with [the C172] at any point, hence no avoiding action was taken. No other information was passed on the radio and the circuit detail continued. The Airprox was reported by the pilot of [the C172].

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

THE BARTON AFISO reports that the two aircraft were operating within the circuit by themselves, and they were aware that [the C172 pilot] was operating with an instructor onboard. They cannot recall from memory an incident which would require the filing of an Airprox and no notification was made on the RT during the flight or immediately after the flight. What they do recall is the following:

1. [The pilot of the C172] was following [the C150] around the circuit.

2. [The pilot of the C172] performed a go-around as the runway was occupied with [the pilot of the C150] performing a touch-and-go. [The pilot of the C172] went overhead the control tower (deadside) and then had positioned slightly more southerly on the deadside than where they would have expected them to be, while [the C150] was climbing out. Following this they believe that they asked [the pilot of the C172] if they were visual with [the C150].

Factual Background

The weather at Manchester was recorded as follows:

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METAR COR EGCC 061050Z VRB04KT 9999 FEW013 FEW037CB 17/15 Q1010 TEMPO SHRA
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Analysis and Investigation

Barton Unit Investigation

On the date of the occurrence, the duty FISO was not aware of an occurrence that would have warranted an Airprox and didn't receive any reports suggesting that one would be filed. Upon receiving notification from UKAB, the Duty FISO was asked to write a statement and the RT recording was reviewed. The assistant FISO at the time of the occurrence recalled [a separate event] but no Airprox.

The pilot of the C172 went around due to the C150 occupying the runway. Following the go-around, the Duty FISO asked the pilot of the C172 if they were visual with the other Cessna and they replied negative. Only the C172 was displaying on the ADS-B FID. The convergence was spotted by the Duty FISO visually out of the window and they could see that the C172's track was not taking into account the traffic ahead. Details on the location of the C150 were passed to the pilot of the C172 and the pilot of the C172 positioned behind.

CAA ATSI

The pilot of the C172 had initially intended to depart on a local flight, but due to weather had elected to remain in the circuit. The pilot of the C150 joined the circuit about 2.5min later. At 1032:34 the C150 was turning downwind left-hand on its second circuit, with the C172 crosswind on its third (see Figure 1).

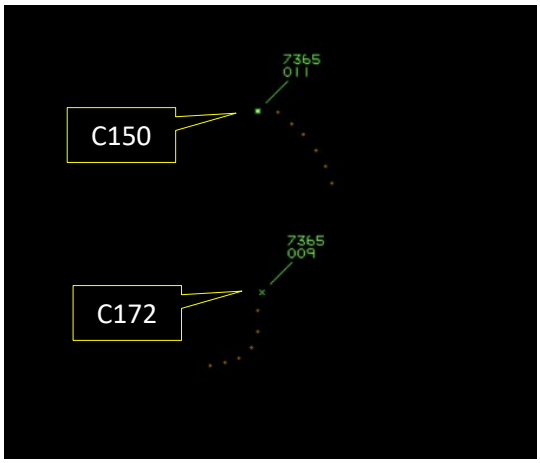


Figure 1 – 1032:34

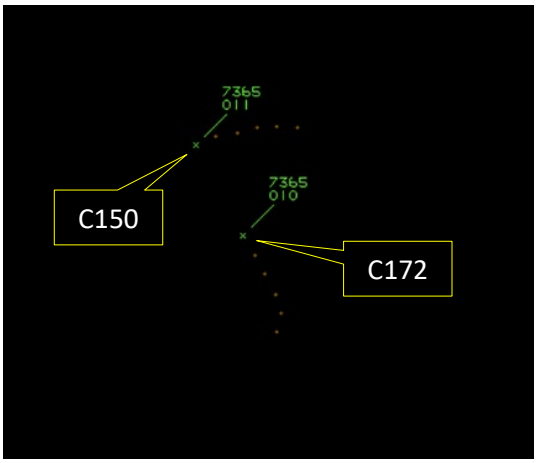


Figure 2 – 1032:52. 10kt speed differential

At approximately 1033:17[1] the pilot of the C150 reported downwind and was instructed by the Barton AFISO to report final. At 1034:00 the pilot of the C172 reported downwind and was advised "*one ahead – report final*" which was acknowledged by the pilot.

At 1036:00 the pilot of the C150 reported final and was given the runway by the AFISO (see Figure 3). Somewhere between the times of 1037:00 and 1037:15 the pilot of the C172 reported on final, and then 5sec later, before the AFISO could reply, reported going-around (see Figures 4 & 5). At 1037:54 both aircraft were visible in the climb-out, 0.6NM apart (see Figure 6).

[1] The RTF timecode was found to be erroneous. Timings have been taken from the radar replay.

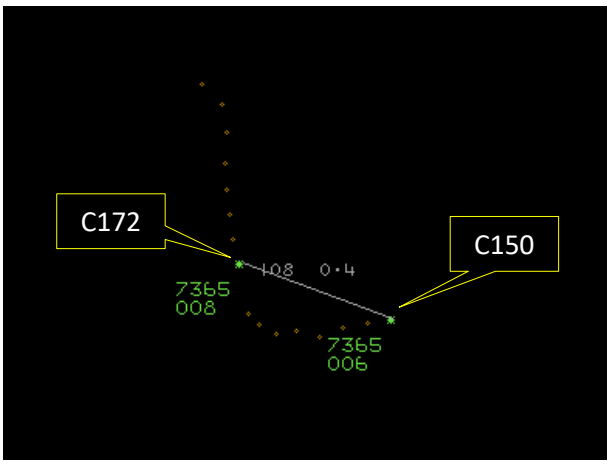


Figure 3 – 1036:00. Separation of 0.4NM

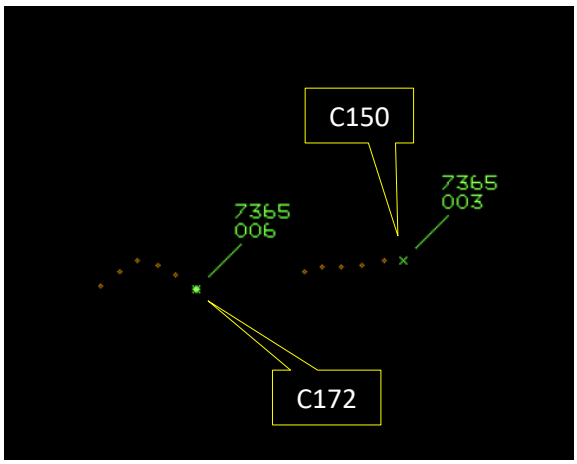


Figure 4 – 1037:00. Separation of 0.6NM

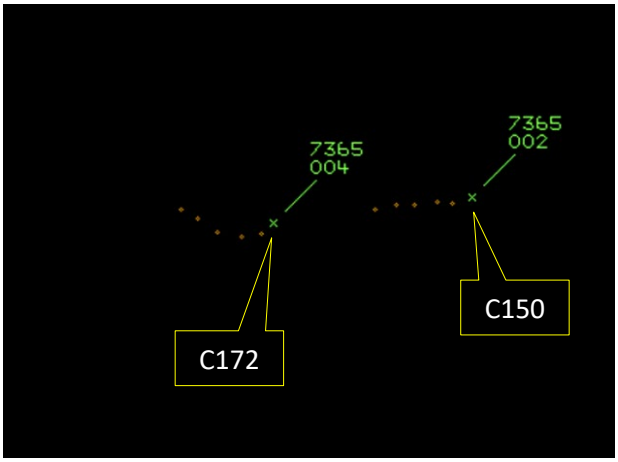


Figure 5 – 1037:10. Separation of 0.7NM

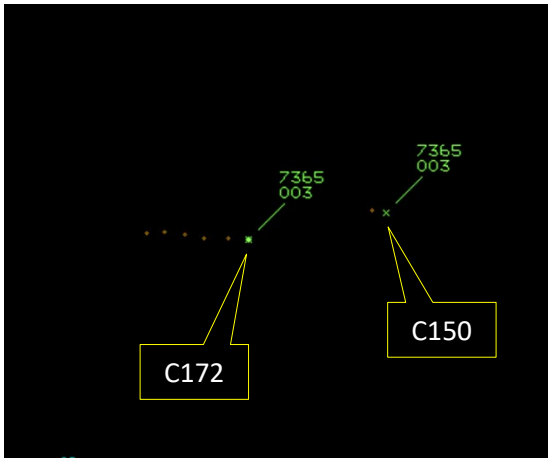


Figure 6 – 1037:54. Separation of 0.4NM

At 1038:17 the distance between both aircraft was observed to be reducing, with the groundspeed of the C172 calculated by the system to be 87kts and the C150 ahead, 54kts (see Figure 7).

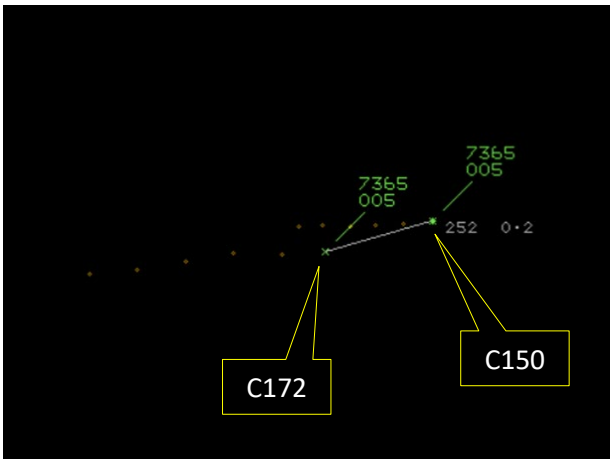


Figure 7 – 1038:17. Separation of 0.2NM

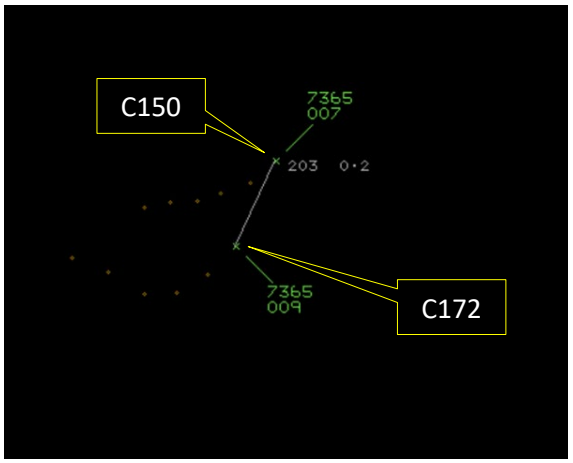


Figure 8 – 1038:45. Separation of 0.2NM

Between the times of 1039:25 and 1039:47 the Barton AFISO asked the pilot of the C172; "*(c/s) just confirm you're visual with the other Cessna in the circuit?*". The C172 pilot reported "*negative*", and the AFISO continued "*roger – believe that traffic's on your left-hand side, turning downwind*", to which the C172 pilot replied; "*traffic in sight*" (see Figures 9 & 10). CPA occurred at 1039:38 with the aircraft 100ft and 0.1NM apart (see Figure 11).

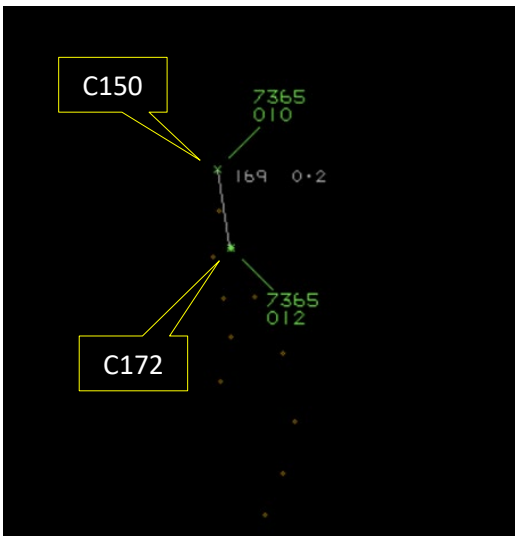


Figure 9 – 1039:25. 29kt speed differential

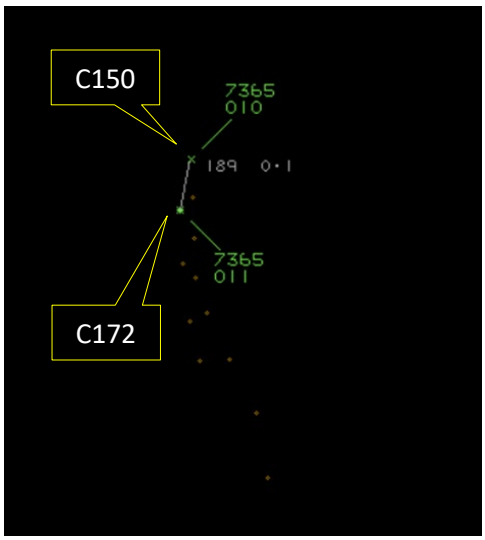


Figure 10 – 1039:31. Separation of 0.1NM

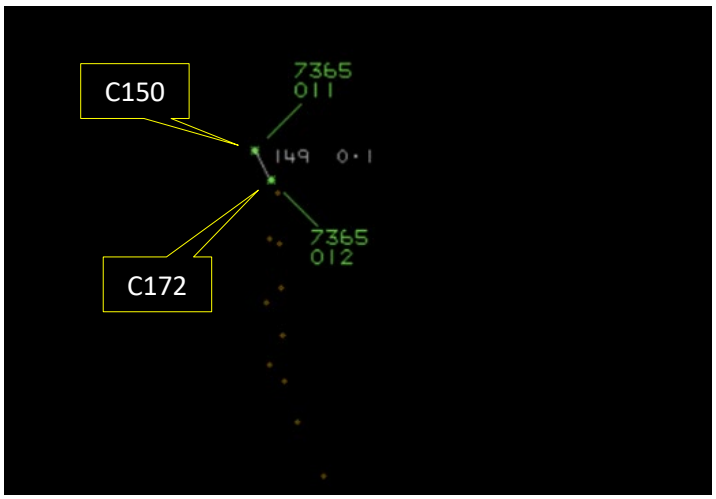


Figure 11 – CPA at 1039:38

Analysis: ATSI received copies of reports from both pilots and a statement from the AFISO. No formal MOR has been submitted by the unit. A review of the Barton RTF was completed, although the timecode was found to be approximately 5min fast. Area radar replay was used to provide snapshots for the report.

At the beginning of the circuit preceding the Airprox, the C172 appeared to be constantly overhauling the C150, with the C172 appearing on the radar replay to initially be flying towards the C150 whilst it was crosswind and the C150 downwind. The C172 was observed to be generally flying the circuit at a speed approximately 10kts faster than the C150. On final approach before the Airprox, the C172 was observed to be 'weaving', possibly to increase spacing.

After the pilot of the C172 had reported going-around and the C150 became visible on the radar replay once more, the speed difference between both aircraft was observed to have increased significantly, with the replay system calculating the C172 to be flying nearly 30kts faster than the C150. The distance between both aircraft on the crosswind leg was then observed to decrease significantly, suggesting that the C172 pilot may not have been immediately visual with the C150 ahead.

The AFISO's RTF throughout had been precise, and their warning to the C172 pilot about the presence of the C150 appears to have assisted the C172 pilot in gaining visual contact. The AFISO's emailed report was retrospective as no Airprox report was made to them at the time. The unit was subsequently contacted for more information and an investigation report. That report highlighted

that the potential conflict had been spotted by the AFISO out of the VCR window. Although the unit has a Flight Information Display System (on trial), only the C172 was visible at the time.

The pilot of the C172 stated in their written report that there was some confusion as to how to fly a go-around at Barton. They admitted that they had not been visual with the C150 until alerted to its presence by the AFISO. They believed that they had checked for traffic before turning crosswind and saw none. The pilot of the C150 reported not being visual with the C172 although aware of its presence due to the warning given by the AFISO to the pilot of the C172.

City Airport (Manchester Barton) is reminded of its obligations under Regulation (EU) 2017/373 of 1 March 2017 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018 ATM/ANS.OR.A.065 paragraphs (a) through (e), with regards to the initial submission of a mandatory occurrence report and any follow up reports within the specified timescales as defined within Regulations (EU) 996/2010 and 376/2014.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft could be positively identified from Mode S data. The diagram was constructed and the separation at CPA determined from the radar data. The radar replay showed the aircraft flying at Flight Levels. The altitudes of the aircraft have been determined by applying a conversion factor with reference to the atmospheric pressure at Manchester which had been recorded as 1010hPa.

In their narrative report, the pilot of the C172 had made reference to the go-around procedure in the entry for Manchester Barton in the AIP and also to the general guidance on maintaining separation within the circuit provided in the 'Skyway Code'. The relevant excerpts are reproduced below:

AIP EGCB AD 2.22 FLIGHT PROCEDURES
2 FIXED WINGED

a. Fixed winged circuit height is 1000 FT (Barton QFE).

⋮

g. Go-Arounds
   i. Approaches to runways must not be continued below 200 FT AAL if:
      1. The approach ahead or runway is occupied or obstructed by aircraft, vehicles or personnel.
      2. The PIC feels that the approach or landing is becoming unstable or unsafe.

h. Go-Around Procedure
   i. To initiate the go-around, manoeuvre the aircraft to the deadside of the runway climbing parallel to the runway in use climbing to circuit height (1000 FT AAL) before turning crosswind.
   ii. Exercise caution when low flying in the go-around over aircraft on the ground including helicopters air taxiing, personnel and vehicles.
   iii. Ensure aircraft ahead are kept in sight.
   iv. Do not manoeuvre onto the live side as this may conflict with helicopter operations.
   v. Do not climb initially above 500 FT AAL until you have passed the upwind end of the runway in use, which ensures maximum separation between you and aircraft joining overhead, flying crosswind at circuit height.

Skyway Code v.3
Maintaining separation

> Control your speed – slowing down is often necessary to integrate with other traffic, deploy flaps and landing gear early if necessary. If flying a particularly slow aircraft you may need to keep your speed up so as to avoid faster aircraft bunching behind you.

> Manoeuvre to keep a safe distance from others. A combination of adjusting the width of your circuit, rates of turn and relative speed can normally achieve this.

> Avoid getting close to other aircraft and having to take sudden avoidance manoeuvres that might disrupt the traffic flow. Do not orbit in the circuit for spacing.
> If you cannot maintain adequate separation from others, break off from the circuit and rejoin from the dead side.

> If forced to go around on final due to traffic ahead or on the runway, make the decision in good time. Cross to the deadside as you climb away and rejoin the circuit on the cross wind leg or as appropriate.

> It is important that you maintain a stable approach, including: Rate of Descent, Speed, Direction

The references made by the pilot of the C172 to 'Variant A' and 'Variant B' as distinct go-around techniques at Barton could not be verified. It could be observed on radar that the pilot of the C172 had extended their base-leg and had weaved to the left and right during their final-leg which is consistent with an attempt to increase separation from the C150 ahead. The pilot of the C150 had initiated a touch-and-go manoeuvre and the C172 had been 0.6NM behind. The C150 was not visible on radar below FL001 (and this would equate approximately to the ground elevation at the airfield). The C172 was observed to descend and the Mode C had indicated a minimum of 300ft. When the C150 appeared on radar again, the separation between the aircraft had been 0.5NM and the Mode C of each aircraft had been indicating 300ft. From then, both aircraft had been climbing and the separation between them had been reducing. With both aircraft indicating a Mode C of 600ft, the pilot of the C172 had turned right and this appears to be consistent with their narrative of having been instructed to fly further to the dead-side. Both aircraft were observed to turn onto the crosswind leg at approximately the same time, the C172 indicating 900ft, the C150 indicating 700ft and with a separation of 0.2NM.

The C172 and C150 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 C172 and a C150 flew into proximity in the Manchester Barton ATZ at 1040Z on Tuesday 6th September 2022. Both pilots were operating under VFR in VMC, both in receipt of an AFIS from Barton Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the AFISO 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 turned their attention to the actions of the pilot of the C172 and applauded the decision to have initiated a go-around given the circumstances of their approach to the runway. Turning their attention to the execution of the go-around procedure, members concluded that there had been a notable difference between the expectations of the pilot and those of their instructor. On one hand, there had been the apparent expectation of the pilot of the C172 that, whilst the C150 pilot was conducting a touch-and-go, they would take the opportunity to overtake and, having had the advantage of speed and altitude, to turn onto the crosswind leg well in front. On the other hand, there had been the apparent expectation of the instructor that the go-around was to be flown further to the deadside and to 'tuck-in' behind the C150 as it turned on to the crosswind leg.

Members suggested that it was common for light-aircraft in the visual circuit to have different airspeeds and that a pilot might often need to consider a range of actions in order to maintain separation. It was noted that the pilot of the C172 had increased the length of their circuit legs and had weaved to increase their track-distance but had consistently been flying faster than the C150 pilot. Notwithstanding that their airspeed could have been reduced by selecting an increased flap position, it had been inevitable

[2] (UK) SERA.3205 Proximity.

[3] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

that an overtaking manoeuvre had been necessary. Members suggested that there would have been abundant opportunity during previous circuits to have carefully considered a plan before its execution.

Upon the C150 pilot conducting a touch-and-go manoeuvre, and the pilot of the C172 initiating a go-around, members were in agreement that it would have been most prudent indeed to have broadcast an intention to overtake for the benefit of the AFISO's and C150 pilot's situational awareness (**CF2**).

Members acknowledged that the instructor had intervened to instruct the pilot to fly further to the deadside, but were disappointed that the instructor had not intervened to the effect of maintaining visual contact with the C150 given that the instructor's implied objective had been to 'tuck-in' behind the C150 and not to have overtaken it (**CF7**). Members noted that the 'mental-model' held by the pilot of the C172, and indeed held by their instructor, had degraded to simply a generic awareness of the relative position of the C150, rather than specific awareness, as they had lost visual contact (**CF8**). Members emphasised that a fundamental tenet of the visual circuit is that a pilot must maintain visual contact with other aircraft. Indeed, the go-around procedure in the entry in the AIP for Barton is explicit that 'aircraft ahead are kept in sight'. As the pilot of the C172 had ultimately remained behind the C150 in the circuit, and that visual contact with the C150 had been lost, members were in agreement that the go-around had not been flown in accordance with the published procedure (**CF1, CF3**). Additionally, it was agreed that pilot of the C172 had not flown in accordance with the established pattern of traffic in the circuit (**CF5**).

Having acknowledged that the C150 pilot had performed a touch-and-go, members were in accord that the pilot of the C172 could have anticipated that the C150 pilot would have subsequently climbed back to circuit-height. Therefore, in consideration of the actions of the C172 pilot as they turned onto the crosswind leg, members' opinions were split. Some members suggested that there had been an assumption by the C172 pilot that the C150 had been overtaken, whilst other members suggested that the awareness of the C150 had been totally lost. There was consensus that, whichever had been the case, there had been no realisation that the C150 had been gradually climbing towards the C172 from below. This, the Board concluded, had been the consequence of a wholly insufficient adaptation of the dynamic plan during the execution of the go-around manoeuvre (**CF4**).

Members applauded the timely interjection by the AFISO to enquire whether the C150 traffic had been visually acquired, which apparently had had the effect of prompting the pilot of the C172 to regather their situational awareness. It had not been until shortly after that transmission that the pilot of the C172 had sighted the C150 as it had appeared below them turning onto the downwind leg. Members agreed that having visually acquired the C150 at the point of CPA effectively constituted a non-sighting (**CF9**). Until that point, members noted that the C150 had been obscured from the view of the pilot of the C172 (**CF10**). Members wished to emphasise the importance of keeping the 'mental-model' updated as the other pilots flying within a circuit make position-calls. It was suggested that a simple request on the radio by the pilot of the C172 to clarify the position of the C150 would have been prudent and beneficial to the situational awareness of all (**CF6**).

Turning their attention to the concept of there being two distinct versions of the go-around technique, members were keen to highlight that the guidance provided in the Skyway Code is to be considered as general guidance to pilots and should never be considered as having precedence over a published procedure. Whilst not suggesting that this had been the case in this instance, the Board had some sympathy with the view that a less-experienced pilot might wish to adhere to one technique that they had been taught for a go-around for example. However, it was considered imperative that a pilot should learn to adapt a technique to suit the dynamic circumstances of the situation with which they are presented.

Returning to their thoughts on the decision by the C172 pilot to have initiated the go-around, members agreed that that decision had demonstrated a suitable reaction to the circumstances of the aircraft ahead performing a touch-and-go. However, as there had been no specific guidance for how to conduct a go-around whilst an aircraft ahead was performing a touch-and-go, the situation required careful consideration. As previously concluded, there had been ample time for a suitable plan to have been formulated regarding an overtaking manoeuvre had the scenario been anticipated well in advance.

The Board next considered the actions of the pilot of the C150. Members agreed that the pilot had had generic awareness of the C172 behind them (**CF8**). Some members wondered whether the pilot of the C150 had been aware that the C172 had been flying notably faster around the circuit and whether the pilot could have anticipated that an overtaking manoeuvre could have been imminent whilst they had performed the touch-and-go. If that had been the case, some members suggested that it may have been prudent to have made a call on the radio as they began their climb back to circuit height to have clarified the position of the C172. This may also have elicited the intentions of the C172 pilot. A key message, and one that members emphasised throughout their analysis of this Airprox, is that communication and awareness is vital to the safe conduct of a flight. In this instance, the pilot of the C150 had not sighted the C172, obscured from their view as it was above and behind them (**CF9**, **CF10**).

In concluding their deliberations, members were in agreement that a thorough pre-flight briefing might have highlighted the difference in expectations between the pilot of the C172 and their instructor, and that any misunderstandings could have been resolved. Members agreed that this difference had not been identified and resolved on the ground, nor resolved satisfactorily in the air, and that it had been the unspoken assumptions of the pilot of the C172 and of their instructor that had led to confusion and, ultimately, had distracted from the safe conduct of the flight (**CF2**). When determining the risk of collision, the Board agreed that safety margins had been much reduced below the norm and that providence had played a part in events. As such, the Board assigned a Risk Category B to this Airprox (**CF11**).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022208			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
1	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			
2	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
3	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
4	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
5	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			
6	Human Factors	• Lack of Communication	Events involving flight crew that did not communicate enough - not enough communication	Pilot did not request additional information
7	Human Factors	• Mentoring	Events involving the mentoring of an individual	
8	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			
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
10	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
	• Outcome Events			

11	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: B

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:

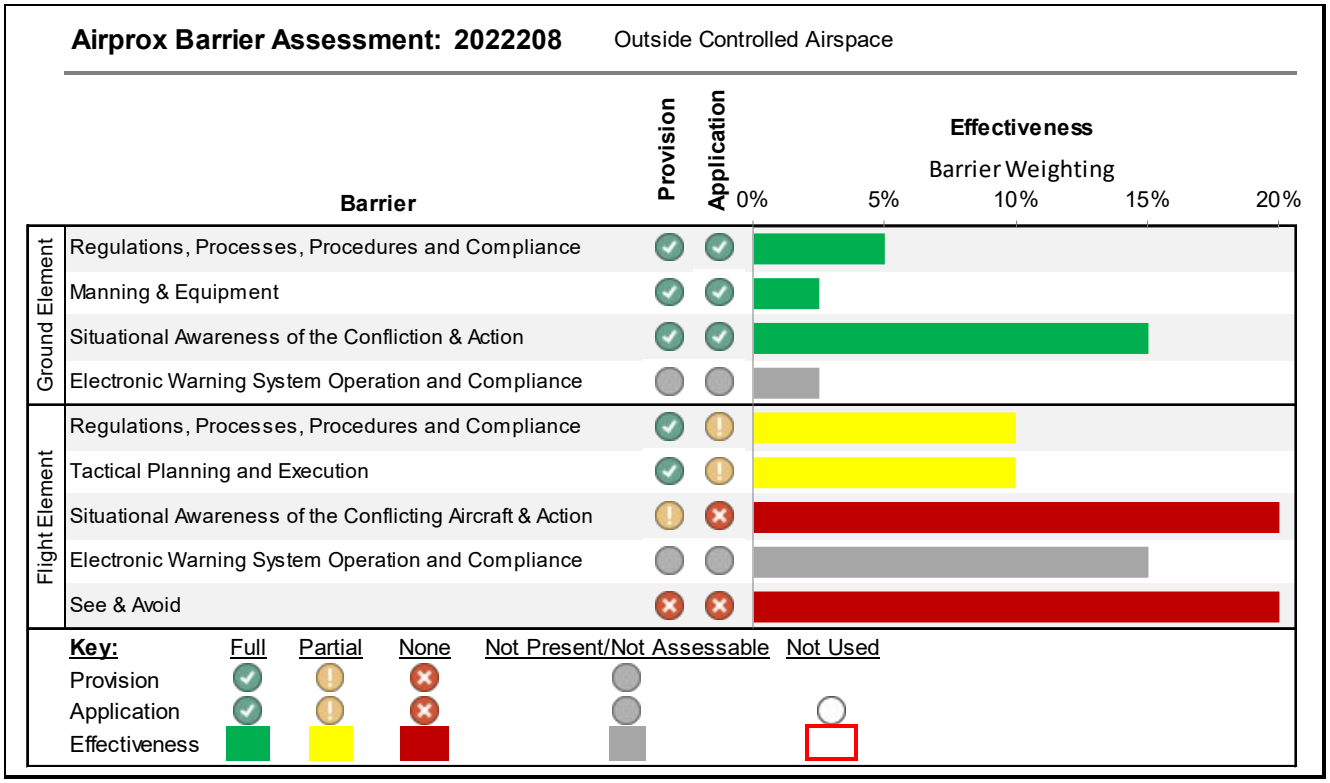
Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the pilot of the C172 had not maintained visual contact with the C150 in accordance with the go-around procedure published in the entry for Manchester Barton in the AIP.

Tactical Planning and Execution was assessed as **partially effective** because there had been insufficient adaptation of the dynamic plan by the pilot of the C172 following confusion in the execution of the go-around procedure.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because, notwithstanding the generic Situational Awareness that each pilot had, the pilot of the C172 had not garnered specific information to enhance their Situational Awareness as the incident had unfolded.

See and Avoid were assessed as **ineffective** because the pilot of the C172 had effectively not seen the C150 until it had emerged from below and to the left of them.



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