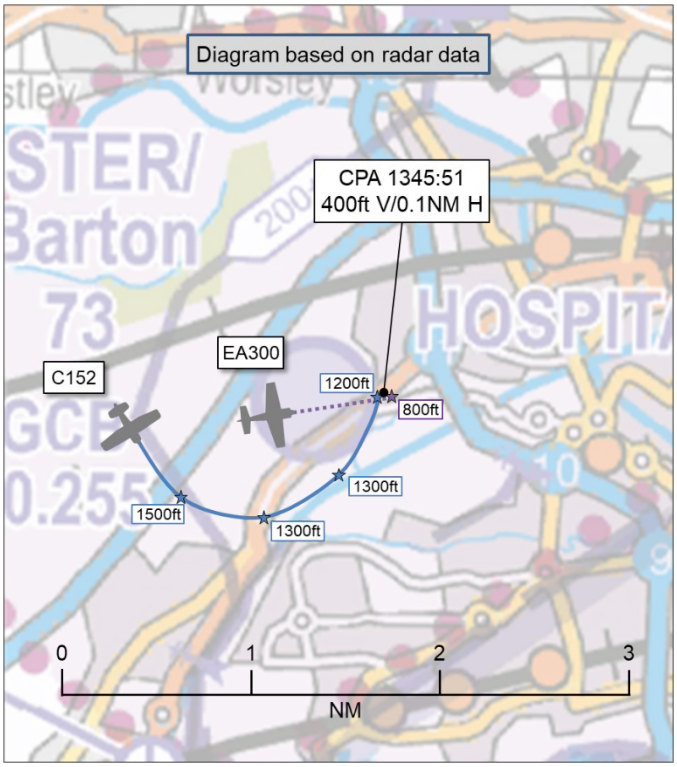
AIRPROX REPORT No 2025085

Date: 15 May 2025 Time: 1346Z Position: 5328N 00223W Location: Barton ATZ

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	EA300
Operator	Civ FW	Civ FW
Airspace	Manch/Barton ATZ	Manch/Barton ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Barton Information	Barton Information
Altitude	1200ft	800ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Red and white	Black/green/white
Lighting	Landing and nav.	Strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1000ft	Climbing to 1500ft
Altimeter	QFE (1025hPa)	QNH
Heading	360°	090°
Speed	90kt	80kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	0ft V/200ft H	Not seen
Recorded	400ft V/0.1NM H	



THE C152 PILOT reports that they were commencing an overhead arrival to RW08. They heard on the radio that [the EA300] was about to take-off. The pilot said they were going to deploy smoke on the take-off roll. They advised their student that this particular pilot usually takes off and goes almost vertical after take-off, so they must fly directly over the RW26 numbers at 1000ft QFE. This they did, in fact keeping slightly left of the 26 numbers, just in case. As they passed over the airfield, they noticed from their window (right-hand side), [the EA300] climbing through their level around 200ft away. If they had gone directly over the numbers or slightly to the right, as maybe a student may have done, there would have been a collision.

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

THE EA300 PILOT reports that their flight details were as follows: RW08 (left-hand circuit), take-off reached 100kt over the RW26 numbers at 100ft, then climbed at 75kt–80kt, below the best rate of climb speed. The departure [profile was], at 1000ft past the cemetery they executed the standard left turn to leave the ATZ continuing the climb to 1500ft. Traffic observed [after the flight, on flight tracking software, the C152] which they assumed was the other aircraft involved, joining the circuit overhead and turning crosswind to the east of the RW26 threshold at roughly the same time they were departing.

Track data for [the EA300] was unavailable for the first phase of this flight, but by their estimate they were already about one-third of a mile east of the RW26 numbers before reaching 1000ft. The cross-wind turn to the east of the RW26 numbers by [the C152] appeared to have reduced their lateral separation; no conflict was apparent to them at the time. [They opined that] other replays they viewed [later] suggested that aircraft normally turn cross-wind directly over the RW26 numbers, not to the east.

Given their climb profile, they were approximately 100ft above ground and slightly west of the RW26 numbers on rotation, then roughly 2000ft east of them by the time the crosswind traffic would still have been over the numbers had the standard CAA overhead joining procedure been followed. However, in

this case the geometry may have resulted in less than 1500ft lateral distance and limited vertical separation while they climbed through 1000ft for 1500ft.

Lessons learned: they will adopt a shallower initial climb to 1000ft to lengthen the departure path although this extends flight over the city of Manchester. They will maintain greater vigilance for aircraft joining overhead to crosswind earlier than they had previously.

THE BARTON AFISO reports [the pilot of the EA300] was discretioned to take-off when [the C152] was in the overhead. They did not witness the two aircraft become close and no R/T transmissions were made to advise as such. The first they heard of the incident was the following day by the pilot of [the C152]. From their recollection neither aircraft appeared on the FID.

Factual Background

The weather at Manchester Airport was recorded as follows:

```
EGCC 151350Z AUTO 04010KT 360V080 9999 FEW039 18/07 Q1027 NOSIG
```

The UK AIP circuit information for Manchester Barton was as follows:

2 FIXED WINGED

a. Fixed winged circuit height is 1000FT (Barton QFE).
b. Fixed winged standard join is overhead at 1700 FT Barton QFE. Pilots must inform ATS if performing a non-standard join prior to entering the ATZ.
c. Variations on circuit direction are permitted for training, weather or operational requirements providing the ATS is informed of the pilots intentions.
d. Circuit directions: Runways 14, 20, 26L, 26R - RH; Runways 02, 08L, 08R and 32 - LH.
e. Orbits within the circuit are not permitted unless required for safety reasons.
f. Visitors can expect to be parked on the West Apron but only with ATS instruction. Refer to AD 2-EGCB-2-1.
g. Go-Arounds
    i. Approaches to runways must not be continued below 300FT AAL if:
        1. The approach ahead or runway is occupied or obstructed by aircraft, vehicles or personnel.
h. Go-Around Procedure (at or above 300FT AAL)
    i. To initiate the go-around, manoeuvre the aircraft to the dead side of the runway, climb parallel to the runway in use, and climb to circuit height (1000FT AAL) before turning crosswind.
    ii. Do not climb initially above 600FT AAL until you have passed the upwind end of the runway in use. This ensures separation between you and the aircraft joining overhead, flying crosswind at circuit height.
    iii. Exercise caution when low flying in the go-around over aircraft on the ground, including helicopters, personnel, vehicles and control line model flying.
    iv. Ensure aircraft ahead are kept in sight.
    v. Caution, helicopter operations up to a maximum of 500FT AAL are permitted on both the live and dead side.
i. Pilots must not carry out 'run and break' manoeuvres within the circuit.
j. As part of our noise abatement and bird avoidance procedures, long low, or fast intentional go-arounds/fly-bys along the runway must not be carried out. Pilots having to go-around because of runway occupation must not fly low over landing aircraft.
k. IFR Procedures
    i. The aerodrome does not have any instrument or approach/navigational aids. All arrivals and departures must operate under VFR /VMC only.
    ii. Pilots flying IFR should plan routings that avoid controlled airspace and for arrivals must plan a suitable alternative in the event that flight conditions preclude flight in VMC on arrival.

Analysis and Investigation

CAA ATSI

Neither aircraft was viewable on the area radar replay until after the Airprox had occurred.

The report from the pilot of [the C152] indicated that they were not only aware of the imminent departure of [the EA300] but also that the pilot of [the EA300] *"usually takes off and goes almost vertical after take-off.*"

ATSI completed a review of the recorded RTF and noted that there was neither generic nor specific Traffic Information issued to the pilots of either aircraft.

Chapter 8 of CAP797 (Flight Information Service Officer Manual) gives the following guidance to FISOs on the passing of Traffic Information:

> *8.15 Whilst generic Traffic Information provided to a pilot may be useful to indicate how busy the aerodrome environment is, as the pilot gets closer to the aerodrome and is required to integrate with other traffic, specific Traffic Information is needed in order to achieve a safe, orderly and expeditious flow of air traffic and to assist pilots in preventing collisions.*
> *8.16 Traffic Information shall be described so as to be easily identified by the pilot*
> *8.18 Traffic Information to traffic operating in the vicinity of an aerodrome, and specifically within the ATZ and to flights conducting Instrument Approach Procedures (IAP) shall be issued in a timely manner when, in the judgement of the AFISO, such information is necessary in the interests of safety, or when requested by the aircraft. When a pilot report indicates, or an AFISO considers, that there may be a collision risk, specific Traffic Information shall be passed to each pilot concerned.*
> *8.19 In addition to the information listed in paragraph 8.99, before entering the traffic circuit an aircraft should be informed of the current traffic circuits and other traffic when necessary.*
> Relating to departures:
> *8.88 Prior to take-off aircraft shall be advised of:*
> *e) current traffic circuits and other traffic when necessary. When a pilot report indicates, or an AFISO considers, that there may be a collision risk, specific Traffic Information shall be passed to each pilot concerned.*

CAP797 is specific that Traffic Information is passed when "*the judgement of the AFISO such information is necessary in the interests of safety, or when requested by the aircraft."*

No report was received from the AFISO at the time, but their comments were subsequently passed to UKAB nearly two months later (see above).

There was no actual unit investigation, with the unit stating that; *"as neither aircraft displayed on the FID it was not possible to carry out a more thorough investigation other than the discussions with the Duty FISO who did not identify a conflict at the time."*

It is not known if the AFISO was aware that the [EA300] departure might include a high rate of climb which had been anticipated by the pilot of [the C152] and which apparently did take place.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were positively identified using Mode S data. The EA300 first appeared on the radar replay at 1345:51 during its climb-out from Barton. The separation at that time was 400ft vertically and 0.1NM laterally, and was the closest recorded point of approach (Figure 1).

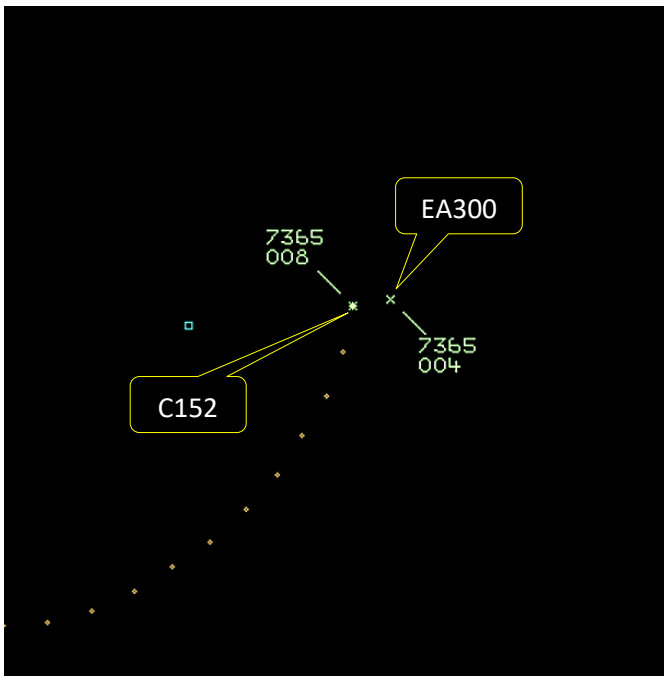


Figure 1 Time 1345:51 CPA

The EA300 continued to climb straight ahead while the C152 continued to join the circuit pattern. The two aircraft became co-altitude at 1346:03, at which point they were 0.4NM apart.

No ADS-B data was available to analyse for either aircraft, although they had both appeared on at least one alternative source of tracking software utilising MLAT data, with the EA300 appearing at approximately the same time as on the NATS radar.

The C152 and EA300 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 C152 and an EA300 flew into proximity in the Barton ATZ at 1346Z on Thursday 15th May 2025. Both the C152 and EA300 pilots were operating under VFR in VMC and 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, 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.

The Board first considered the actions of the C152 pilot, and noted that the pilot had preconceptions regarding the departure profile of the EA300 and had adjusted their arrival in accordance with their expectations. Some members felt, however, that the adjustments made had not adequately assured their safety, and thought that it may have been pertinent not to have crossed the runway and to have remained on the deadside until the EA300 had departed. However, controller members thought that the pilot may have continued to perform a normal arrival pattern whilst announcing their position and intentions for the benefit of the departing traffic. The Board noted that although the C152 pilot had had situational awareness of the EA300's departure, had the pilot been provided with specific Traffic

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

Information, they may have been able to adapt their plan accordingly not to have positioned themselves above the departing traffic. Members agreed that the C152 pilot had not seen the EA300 until after CPA, effectively a non-sighting of the EA300 by the C152 pilot (**CF6**).

The Board then turned their attention to the actions of the EA300 pilot, and noted that at no point had it been it made obvious to the AFISO or surrounding traffic how their departure profile would be conducted and members agreed that the pilot had not communicated their intentions to perform a zoom climb on their take-off profile (**CF2**). Members felt the operation of a high performance aircraft came with greater responsibility, and that pilots must listen and plan for other traffic to build up their situational awareness before take-off. Some members were concerned about the normalisation of this particular pilot's departure profile at Barton and that the pilot had not, therefore, specifically mentioned their intended departure profile on the day of the Airprox. The Board noted that, although the pilot had considered a plan for pilots performing a standard arrival, the EA300 pilot had neither taken into consideration any aircraft making other than a standard arrival nor asked the AFISO whether there had been any traffic to affect their departure. Members agreed, therefore, that the pilot had neither requested additional information on joining traffic prior to their departure (**CF4**) nor had they avoided or conformed with the pattern of traffic formed by the joining C152 (**CF3**). The Board noted that the EA300 pilot had not been provided with specific Traffic Information on the C152 and that they had not seen the C152 joining as they departed. Members agreed that the EA300 pilot had had no situational awareness of the presence or position of the C152 (**CF5**) and that they had not seen it, effectively a non-sighting for the EA300 pilot (**CF6**).

The Board then discussed the actions of the Barton AFISO and wondered if they had had a similar preconception of the EA300's departure to that of the C152 pilot. The Board noted that there had been no indication that this had been the case, however, members were disappointed to note that the AFISO had not informed either involved pilot of the presence and intentions of the other's aircraft. Members agreed, therefore, that the AFISO had not provided Traffic Information to either the C152 or EA300 pilots as had been required (**CF1**).

On concluding their discussion, the Board noted the EA300 flew beneath the C152 as it had been joining the circuit and that the EA300 had performed a zoom climb which had, likely, reduced the anticipated separation between the two aircraft. Members agreed that although safety had been degraded, it had been fortuitous that neither pilot had been required to perform an avoiding manoeuvre. Consequently, the Board agreed that there had been no risk of collision and, as such, assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025085			
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
	Flight Elements			
	• 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	• 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			
4	Human Factors	• Lack of Communication	Events involving flight crew that did not communicate enough - not enough communication	Pilot did not request additional information

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	• 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[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:

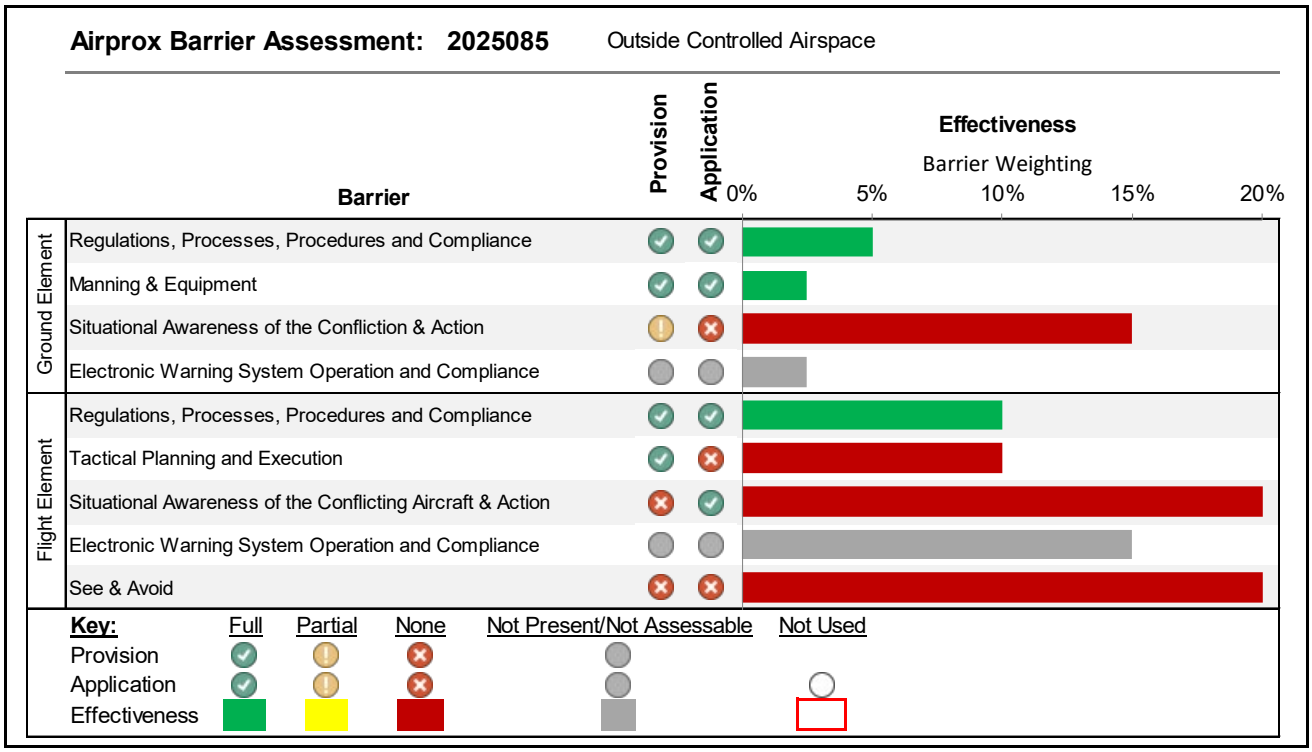
Situational Awareness of the Confliction and Action were assessed as **ineffective** because the Barton AFISO did not pass specific Traffic Information to either the C152 or the EA300 pilots.

Flight Elements:

Tactical Planning and Execution was assessed as **ineffective** because the EA300 pilot had neither communicated their intentions nor considered adjusting their departure profile for joining traffic.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the EA300 pilot had no situational awareness of the presence of the C152, having neither been informed of it nor requested pertinent local Traffic Information.

See and Avoid were assessed as **ineffective** because the C152 pilot had not seen the EA300 until it passed beneath and to the right of them, and the EA300 pilot had not seen the C152.



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