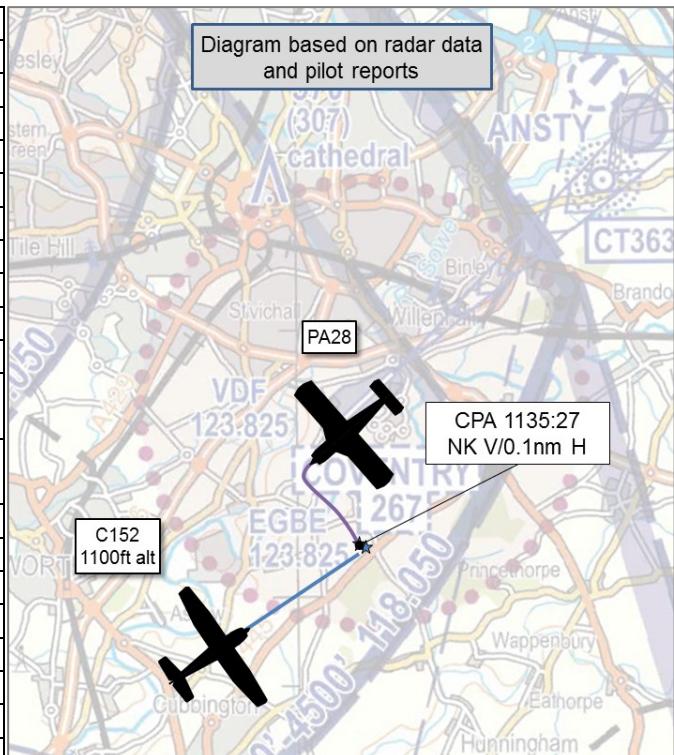


AIRPROX REPORT No 2019014

Date: 22 Jan 2019 Time: 1135Z Position: 5220N 00128W Location: Coventry Aerodrome

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	PA28
Operator	Civ FW	Civ FW
Airspace	Coventry ATZ	Coventry ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Coventry	Coventry
Altitude/FL	1100ft	NK
Transponder	A, C, S	A
Reported		
Colours	Blue, Black	White, Red, Black
Lighting	Landing, Nav, Beacon	Nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1300ft	1000ft
Altimeter	QNH (1001hPa)	NK (990hPa)
Heading	050°	140°
Speed	90kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	0ft V/<0.1nm H	150ft V/600m H
Recorded	NK V/0.1nm H	



THE C152 PILOT reports that they had reported that they were entering the Coventry ATZ to join downwind. The AFISO told them there were 2 ahead, one downwind (with which they were visual), and one reaching final. They heard the PA28 pilot being informed by the Coventry AFISO of their position at the start of left-hand downwind for RW23, but the PA28 did a climbing turn onto crosswind and levelled off at 1300ft. At this point they were at the start of downwind and reported downwind. The PA28 pilot did not show any intention of diverting or proceeding behind, and this resulted in the C152 pilot having to make an evasive manoeuvre, turning and descending right. Once established back on downwind, the PA28 pilot remained on their tail at about 0.1nm until late downwind. At the beginning of the downwind leg the PA28 was on their left approaching at the same level directly towards them.

She assessed the risk of collision as 'Medium'.

THE PA28 PILOT reports that the C152 joined downwind as he was crosswind, he reported to the AFISO that he was visual with one ahead and positioned behind as he turned downwind. The C152 was flying at least 150ft lower than the normal circuit height, which was corrected mid-point downwind.

He assessed the risk of collision as 'None'.

THE COVENTRY AFISO reports that the PA28 was departing crosswind from RW23 to remain within the circuit for training. The C152 joined downwind from the Warwick area. Both pilots were passed information on the other aircraft. The AFISO trainee and instructor were visual with the aircraft and did not perceive there to be any confliction. After listening to the R/T recordings there is no evidence that either pilot reported visual with the other aircraft after acknowledging the initial Traffic Information.

He perceived the severity of the incident as 'None'.

Factual Background

The weather at Birmingham was recorded as follows:

METAR EGBB 221120Z 25005KT 210V280 9999 FEW025 04/01 Q1001

Analysis and Investigation

CAA ATSI

At 1128:10, the PA28 called the Coventry AFISO requesting circuits. The pilot was given taxi instructions and advised that RW23 was in use, that the QNH was 1001, and that it would be a left-hand circuit.

At 1130:20 (Figure 1), the C152 called the Coventry AFISO advising that they were just about to cross the M40 inbound to land and requested joining instructions. The pilot was advised that RW23 left-hand was in use and the QNH was 1001. A Basic Service was agreed, the pilot was advised to report joining downwind and that there would soon be 4 aircraft in the circuit. The pilot readback all elements of the R/T exchange except for the circuit direction.

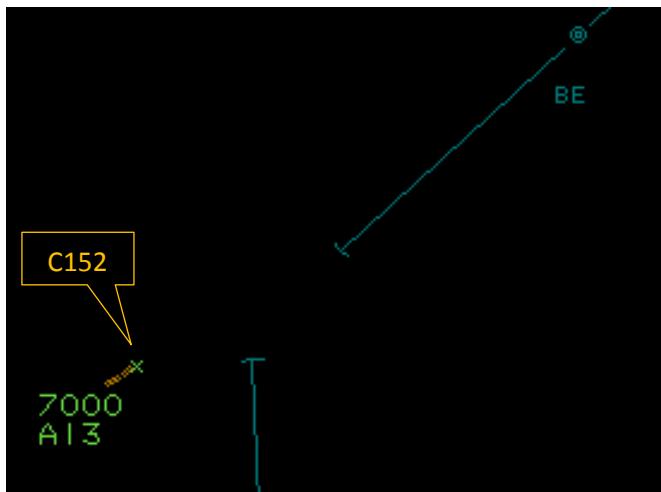


Figure 1 - 1130:20

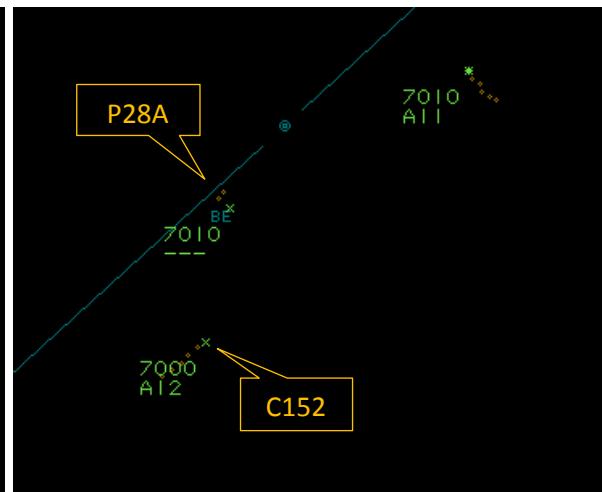


Figure 2 - 1134:50

At 1133:30, the PA28 was given take off at their discretion RW23, for their circuit detail.

At 1134:10, The AFISO passed Traffic Information to the C152 advising them that the PA28 had just departed, the C152 pilot acknowledged.

At 1134:30, the C152 pilot reported entering the ATZ for downwind. The AFISO advised that there were two aircraft ahead of them, the pilot acknowledged with “*two ahead*” [Note: an unrelated aircraft not displaying on the radar replay had reported downwind and was in effect No2 to an aircraft on base leg].

At 1134:50 (Figure 2), the PA28 pilot reported crosswind. The AFISO responded with “*traffic ahead of you is a 152 joining downwind I believe*”. The pilot responded with “*copied the traffic*”.

CPA occurred at 1135:27 (Figure 3), with the aircraft separated by 0.1nm laterally, vertical separation could not be measured.

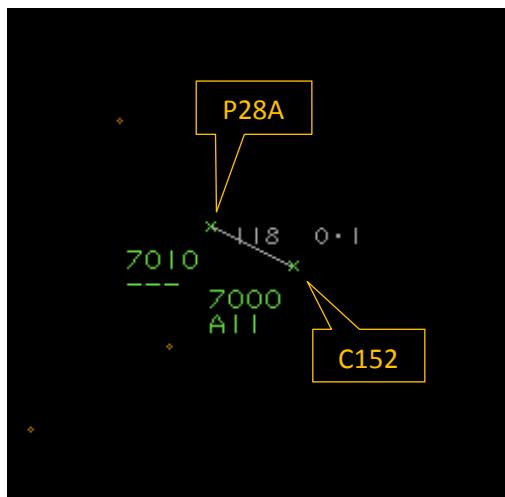


Figure 3 - 1135:27

Relevant CAP797 entries are:

1.13 FISOs are not permitted to issue instructions, except for those circumstances in paragraph 1.14, or when relaying a clearance from an air traffic control unit. Pilots therefore are wholly responsible for collision avoidance in conformity with the Rules of the Air.

Note: paragraph 1.14 is limited to authorisation for instructions to be passed to aircraft on the ground, in certain locations. Elsewhere on the ground and at all times in the air, information shall be passed.

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.

8.17 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.

8.18 In addition to the information listed in paragraph 8.94, before entering the traffic circuit an aircraft should be informed of the current traffic circuits and other traffic when necessary.

8.83 Prior to take-off aircraft shall be advised of:

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.

The AFISO passed timely Traffic Information about the PA28 departure to the C152 pilot prior to the C152 entering the ATZ, with a warning that the circuit would be active with 4 aircraft. The C152 pilot was advised of the PA28 departure and further Traffic Information was passed when the C152 pilot reported entering the ATZ.

The first Traffic Information passed to the PA28 pilot on the joining C152 was when the PA28 pilot reported in the crosswind position and the AFISO advised the pilot that they believed that the C152 was ahead of them. The relevant positions of the PA28 and the C152 at this point would indicate that the PA28 was more likely to be slightly ahead of the C152 (Figure 2). The Traffic Information passed to the pilot of the PA28 was a little late and could have resulted in the pilot being of the belief that the C152 was ahead of them in the circuit.

UKAB Secretariat

The C152 and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. 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 operation².

Summary

An Airprox was reported when a C152 and a PA28 flew into proximity at 1135hrs on Tuesday the 22nd of January 2019. Both pilots were operating under VFR in VMC and in receipt of an Aerodrome Flight Information Service from Coventry.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, transcripts of the relevant R/T frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and 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 began by looking at the actions of the AFISO and noted that the PA28 pilot was only informed about the C152 joining when the PA28 pilot was crosswind as the C152 was about to join the beginning of the downwind leg. Some members also felt that the TI passed to the C152 pilot could have given the impression that the C152 was following an aircraft that was already downwind in the circuit, and that the PA28 was not a factor. In these respects, the Board agreed that the information passed to the pilots was not timely or accurate enough (**CF1**). Notwithstanding, GA members commented that, irrespective of the TI from the AFISO, AFISOs did not sequence traffic in the visual circuit and it was the pilots' responsibility to integrate and sequence with each other.

The Board then turned to the actions of the C152 pilot. The Board first debated when an aircraft was considered to be in the visual circuit, and therefore who was required to integrate or sequence with whom in this scenario. It was agreed that because the C152 had not entered the downwind leg before the PA28 got airborne, the C152 was therefore not in the circuit at the time and thus the PA28 was part of the pattern of traffic that the C152 should have integrated with. Therefore, when the C152 pilot joined downwind, the Board agreed that the C152 pilot should have given way to the PA28 already in the circuit (**CF2, 4 & 6**).

Turning to the actions of the PA28 pilot, the Board agreed that he had just got airborne and was therefore established in the circuit as the C152 pilot joined downwind. Notwithstanding, members opined that when informed by the AFISO that the C152 was possibly ahead of him as he himself was crosswind, the most sensible course of action would have been to graciously turn away to avoid the conflict rather than maintain his 'right of way' and fly into conflict in contradiction of the rule that pilots are not to operate in such proximity to other aircraft as to create a collision hazard. Whilst the Rules of the Air provide the essential core for safety of flight, aviation works best when all parties operate with the best interests of all at heart, which requires consideration for others, especially in scenarios where fine judgement is required. Ultimately, and notwithstanding the fact that the C152 pilot should have integrated with the PA28 during their join, the Board agreed that when the aircraft met at CPA the C152 was in front of the PA28 and that the PA28 pilot then flew into close proximity to the C152 downwind (**CF3, 5 & 7**). Members noted that, fundamentally, the PA28 pilot was visual with the C152 but had still flown into conflict with it (**CF2, 4 & 7**).

¹ SERA.3205 Proximity.

² SERA.3225 Operation on and in the Vicinity of an Aerodrome.

The Board then looked at the risk and agreed that both pilots were visual with the other aircraft and so, notwithstanding the integration issue, there was no risk of collision. Nevertheless, the C152 pilot did not integrate with the pattern of traffic, and the PA28 pilot did not sufficiently avoid the C152. The Board therefore agreed that safety had been degraded but, because both pilots were visual with the other aircraft, the risk was Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

CF	Factor	Description	Amplification
Ground Elements			
• Situational Awareness and Action			
1	Human Factors	• Traffic Management Information Provision	Not provided, inaccurate, inadequate, or late
Flight Elements			
• Regulations, Processes, Procedures and Compliance			
2	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with
• Tactical Planning and Execution			
3	Human Factors	• Incorrect Decision/Plan	Incorrect or ineffective execution
4	Human Factors	• Aircraft Navigation	Did not avoid/conform with the pattern of traffic already formed
• Situational Awareness of the Conflicting Aircraft and Action			
5	Human Factors	• Lack of Action	Pilot flew into conflict despite Situational Awareness
6	Human Factors	• Monitoring of Other Aircraft	Pilot did not sufficiently integrate with the other aircraft
• See and Avoid			
7	Human Factors	• Lack of Action	Pilot flew into conflict

Degree of Risk: C.

Safety Barrier Assessment³

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

Ground Element(s):

Situational Awareness and Action were assessed as **ineffective** because the AFISO did not pass sufficient and timely TI.

Flight Element(s):

Regulations, Processes, Procedures, Instructions and Compliance were assessed as **partially effective** because although procedures were followed in general, the C152 pilot did not effectively integrate with the PA28, and the PA28 pilot flew into conflict with the C152.

Tactical Planning was assessed as **ineffective** because the PA28 pilot did not alter their circuit to account for the C152 that they had been informed was joining downwind ahead in the visual circuit.

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

Situational Awareness and Action were assessed as **ineffective** because the C152 pilot did not integrate with the PA28 that they had been informed was taking-off into the visual circuit.

See and Avoid were assessed as **partially effective** because the PA28 pilot flew too close to the C152 ahead in the visual circuit.

