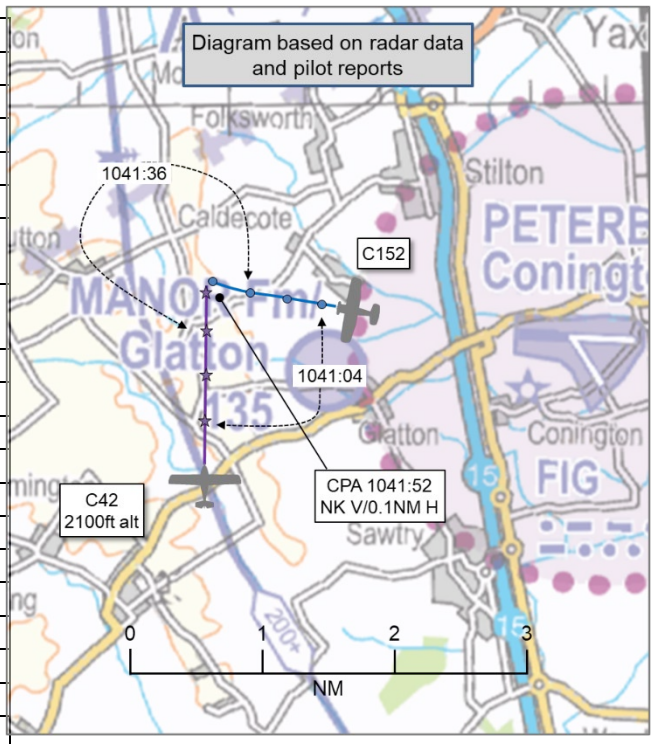
AIRPROX REPORT No 2024075

Date: 04 May 2024 Time: 1042Z Position: 5228N 00020W Location:3NM W of Peterborough/Conington

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	C42
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Changing frequency	Listening Out
Provider	Conington Radio to Wittering Zone	Wittering Zone
Altitude/FL	NK	2100ft
Transponder	None[1]	A, C, S
Reported		
Colours	White	White
Lighting	Beacon	Strobes
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	2000ft	2000ft
Altimeter	QNH (1012hPa)	QNH
Heading	~290°	360°
Speed	~90kt	70kt
ACAS/TAS	Other	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	50ft V/100m H	100ft V/0m H
Recorded	NK V/0.1NM H	



THE C152 PILOT reports that, whilst levelling off after climb-out from Conington on RW28 and shortly after departing the ATZ, they had seen another aircraft slightly above and in their 10 o'clock position. It seemed very close and had been close enough to read its registration. The C152 pilot made a turn to the right to increase separation then carried on their intended heading so that the other aircraft would pass behind them. They believed at the time that their transponder had been turned on and broadcasting Modes A, C, S, although they became aware a little later in the flight that it may not have been. If it had not been turned on, this could have been possibly due to having been distracted by a helicopter taking off from Conington ahead of them when lining up for take-off. The C152 pilot noted that their aircraft displays traffic via a [branded traffic display device], but no warnings had been noticed. They noted that they had been in the process of levelling-off from climb-out after take-off, changing frequency enroute and turning to their desired enroute heading, so workload at the time had been high.

The C152 pilot later added that they had indicated Wittering Zone in their report as that is the frequency they had been tuned to at the time of the proximity event. They had been expecting that the frequency would be inactive, having called and received no response when travelling in the opposite direction earlier in the day, but tuned to it on leaving Conington Radio in case other aircraft in the area made calls on the Wittering Zone frequency whilst they had been passing near and through the MATZ, which would potentially assist the C152 pilot's situational awareness until they came within range of East Midlands LARS.

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

[1] Although the C152 pilot reports having been equipped with a Transponder, radar replays show only a primary contact corresponding to this event.

THE C42 PILOT reports that they had been completing a student solo flight where they had taken off from [departure airfield] and had been practising general handling and steep turns. They had been heading north back to the airfield following on from this and had been in straight and level flight, preparing to descend to circuit height and had begun to complete their airfield approach checks. All of a sudden, an aircraft which they had not seen until it had been almost right in front of them went past from their right side to the left, slightly in front of and below them. It had all happened very quickly and, as the aircraft had already passed, the C42 pilot took no action to avoid as it had no longer been necessary. They report that they had of course been looking out to the best of their ability but simply had not seen this plane. They cannot be sure of the other plane's position prior to seeing it pass by quite closely.

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

Military ATM

Neither Wittering Aerodrome nor Wittering Radar at RAF Marham were operating on the date of this incident.

Factual Background

The weather at Wittering was recorded as follows:

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METAR EGXT 041120Z AUTO 20011KT 9999 BKN028/// 15/08 Q1010=
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Analysis and Investigation

UKAB Secretariat

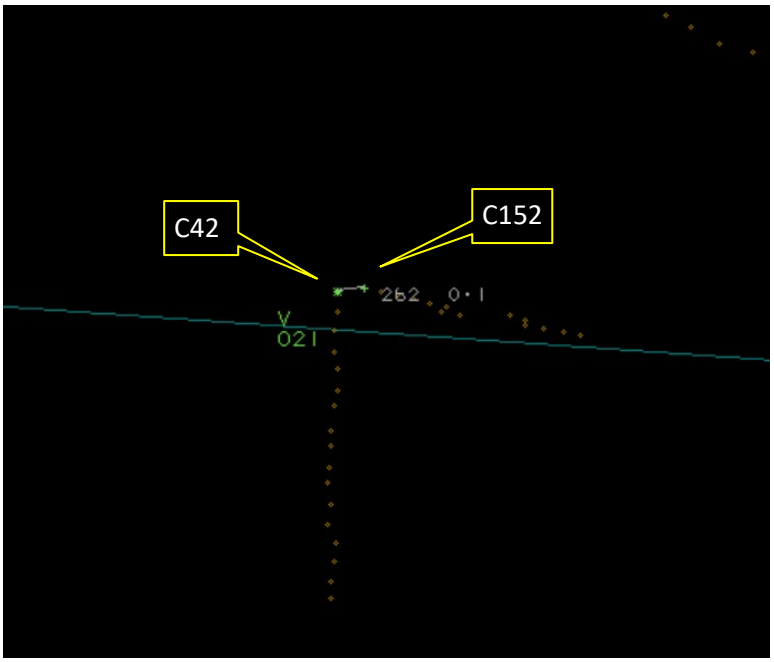


Figure 1: CPA minus 2sec (1041:50). The C152 Primary return disappeared at 1041:52.

The C152 and C42 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] If the incident geometry is considered as converging then the C42 pilot was required to give way to the C152.[3]

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.

Summary

An Airprox was reported when a C152 and a C42 flew into proximity 3NM west of Peterborough/ Conington at 1042Z on Saturday 4th May 2024. Both pilots were operating under VFR in VMC, the C152 pilot had been in the process of changing frequency between the Peterborough/Conington frequency and the Wittering Zone frequency and the C42 pilot had been listening-out on the Wittering Zone frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs/video recordings. 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, noting that they had departed RW28 at Peterborough/Conington and had been establishing themselves on their intended track. Members noted that the pilot had been in the throes of changing frequency and had seen the C42 at close quarters in their 10 o'clock position (**CF3**). Members appreciated the more intense workload on departure and wished to stress the importance of good lookout at all times, particularly on climb-out from an airfield where encounters with non-circuit traffic are highly probable and passing traffic would more likely be sky-lined to them. They noted the pilot's comment regarding their transponder operation and wished to remind all that such equipment, if carried, is an important tool in the conspicuity range and should be thoroughly checked for serviceability prior to departure. Members were heartened to see the C152 pilot had been carrying additional electronic conspicuity equipment and it had been unfortunate that it had not been able to detect the electronic emissions from the C42 (**CF2**). The Board agreed, therefore, that with no common Air Traffic Service between them and the C42, and no electronic conspicuity interactivity, the C152 pilot had not had any situational awareness of the presence of the C42 (**CF1**).

Turning to the actions of the C42 pilot, members noted the route chosen by the C42 pilot and urged pilots to consider a wider berth when passing active airfields if that were possible (for example, utilising the GASCo advice to 'Take Two'), and in all cases to maintain a sharp lookout for departing and arriving traffic. They opined that the pilot might have been better placed to have maintained a listening watch, and perhaps even have offered a blind call on the Peterborough/Conington frequency as they had passed, rather than Wittering Zone, acknowledging that the pilot had been in the process of establishing their recovery to their destination airfield and that such a call might not have been possible. Members noted the lack of electronic conspicuity equipment carried by the C42 pilot and encouraged all pilots to consider its use as a significant tool in the development of situational awareness. The lack of such equipment in this case, and no common radio frequency usage, meant that the C42 pilot was left with only generic situational awareness of potential traffic in and around the Peterborough/Conington ATZ (**CF1**) and this had resulted in an effective non-sighting of the C152 (**CF4**).

Finally, the Board discussed the risk, and in doing so the reports from both pilots were considered. Members agreed that safety margins had been much reduced below the norm and that the actions of the C152 pilot once they had visually acquired the C42 had materially increased separation at the last minute but those actions had not removed the collision risk entirely (**CF5**). As such, the Board assigned a Risk Category B to this Airprox.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024075			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
1	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
	• Electronic Warning System Operation and Compliance			

2	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
	• See and Avoid			
3	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
4	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
	• Outcome Events			
5	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:

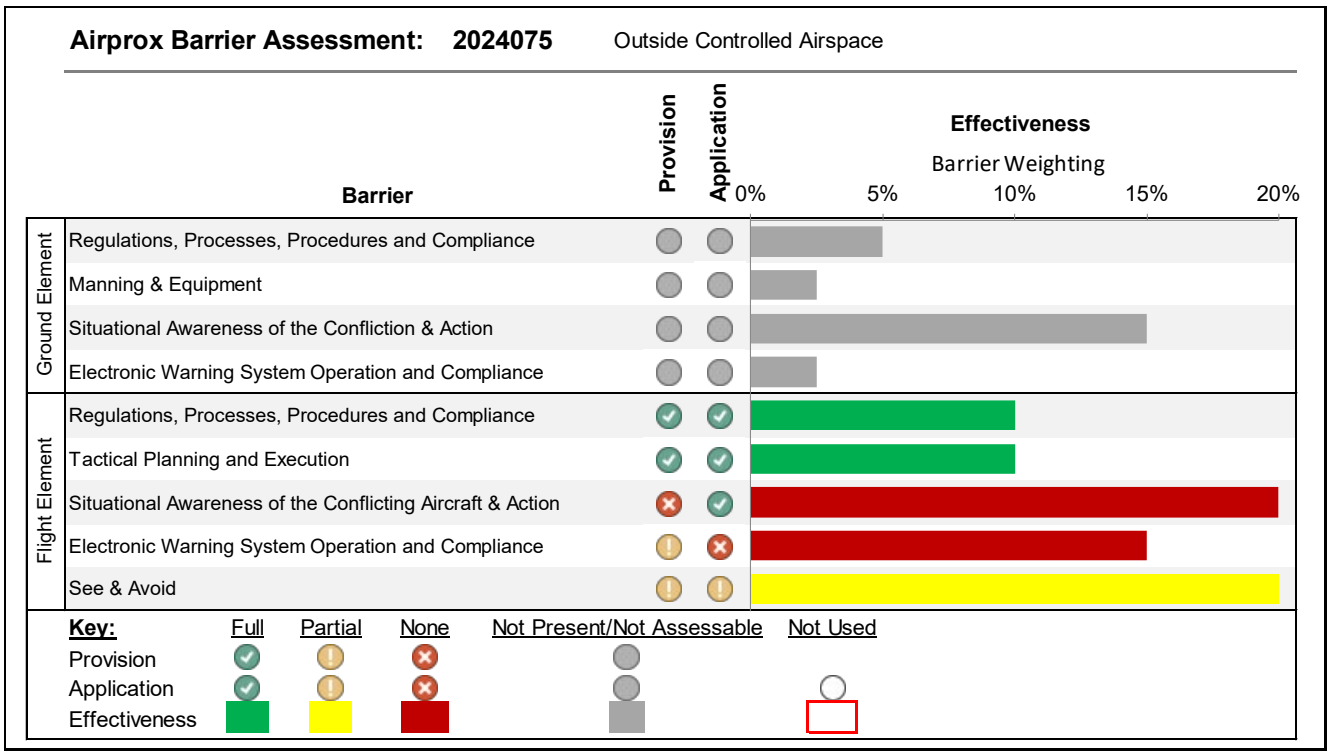
Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C42 pilot had only generic situational awareness of the likely presence of the C152 and the C152 pilot had no situational awareness of the presence of the C42.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the C152 had not been able to detect any electronic emissions from the C42.

See and Avoid were assessed as **partially effective** because the C152 pilot had achieved only late visual contact with the C42 and the C42 pilot had not achieved visual contact with the C152.

[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: 2024075
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