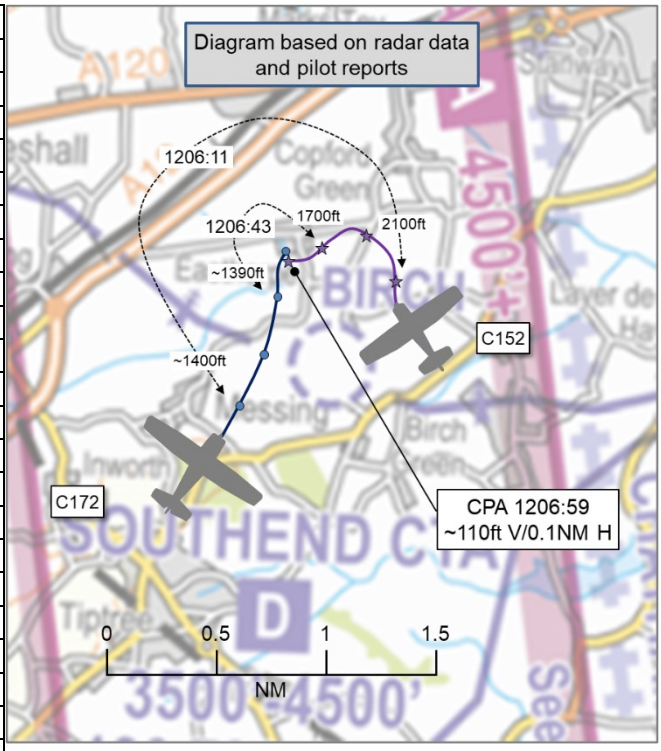
AIRPROX REPORT No 2025030

Date: 17 Mar 2025 Time: 1207Z Position: 5150N 00046E Location: 1NM NW of Birch (disused) Airfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	C152
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Changing frequency	Listening Out
Provider	Earls Colne	Southend
Altitude/FL	~1390ft	1500ft
Transponder	A, C, S[1]	A, C, S
Reported		
Colours	White and blue	Blue and white
Lighting	Strobes, beacon	Standard
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1400ft	1700ft
Altimeter	QNH (1029hPa)	QNH (1029hPa)
Heading	040°	250°
Speed	92kt	70kt
ACAS/TAS	PilotAware	Not fitted
Alert	TA	N/A
Separation at CPA		
Reported	20ft V/20ft H	30ft V/10m H
Recorded	~110ft V/0.1NM H	



THE C172 PILOT reports that they had just picked up their aircraft after its […] and had been taking it back to their base at [destination airfield]. They had just signed off from a Basic Service from Southend but had not yet spoken to [destination airfield] when a yellow ring had appeared on their iPad from their [EC device]. No height information was shown but the [yellow] ring then changed to red. The C172 pilot was searching for a contact when they glanced down and the red ring had gone. They had looked up and saw a C152 coming straight towards them. The C172 pilot pushed the yoke down and the C152 passed over them at about 20ft above. The C172 pilot spoke to the C152 PIC at […] who had been instructing a student in PFLs overhead Birch and they had told them that they [had seen] the C172 after it had passed underneath. The C152 pilot told the C172 pilot that their height had been 1700ft but the C172 pilot's [EC device] had shown the reporting C172 pilot that they had been at 1400ft. During PFLs the aircraft's height changes frequently so the C172 pilot believed the C152 to have probably been at 1400ft.

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

THE C152 PILOT reports that they had been conducting a FIC flight for a student at the end of their course. They had been teaching the C152 pilot a practice forced landing (PFL). They were downwind in the PFL pattern and assessing their position relative to their chosen field when the other aircraft appeared from under their nose and passed under their left wing. On landing, 30min later, the C152 crew reported the Airprox to their ATO […] who had already had a call from the other pilot. On calling them back, the C172 pilot confirmed that it had been their aircraft and that they had also had a late sighting and had taken avoiding action. The C172 pilot had also mentioned that they had seen the C152 on [EC device] but the direction and distance had not been definitive.

[1] The C172 showed initially as Modes A, C and S but became a primary-only track approximately 3:30min prior to CPA.

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

Factual Background

The weather at Southend Airport was recorded as follows:

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METAR EGMC 171150Z 06010KT 9999 FEW023 BKN028 07/02 Q1029=
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Analysis and Investigation

UKAB Secretariat

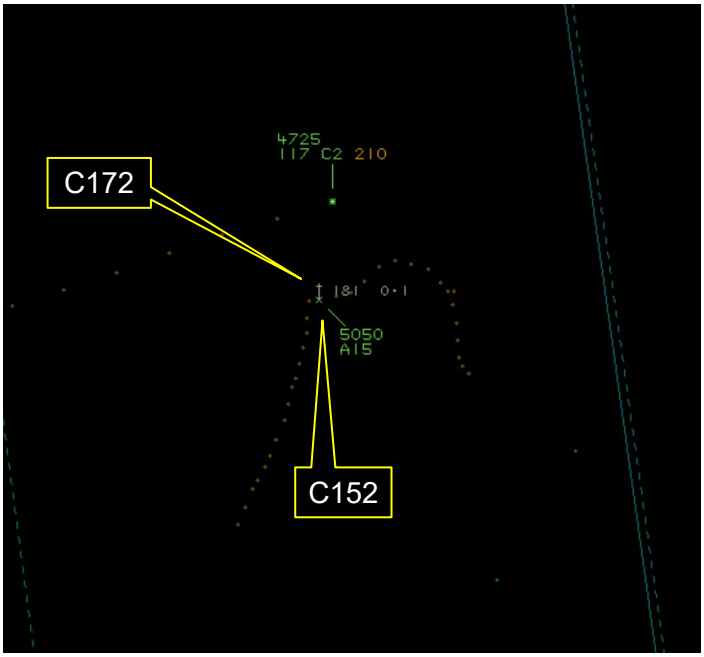


Figure 1: At CPA 1206:59 ~110ft V/0.1NM H

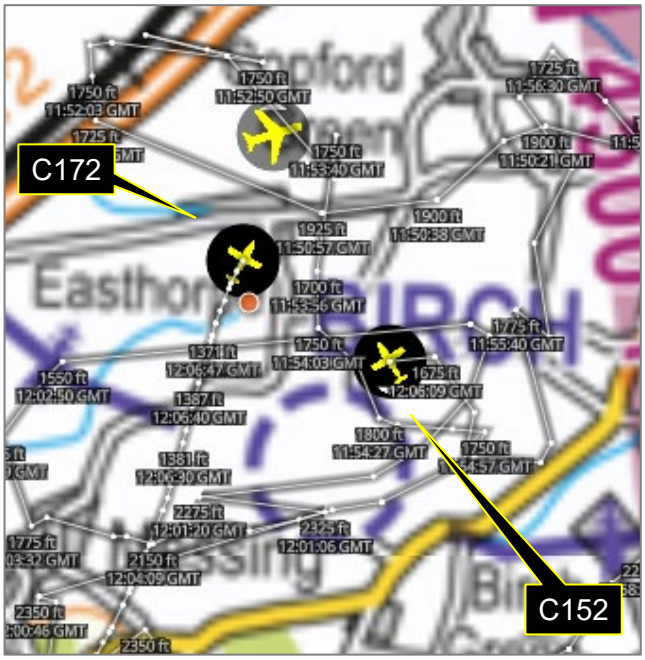


Figure 2: From the CAA's Airspace analyser Tool at 1207:00. The C172 is shown to be at 1388ft/029°/90kt/0fpm and the C152 (the last time the C152 data refreshed had been at 1206:20) at 1625ft/328°/101kt/-700fpm. The orange dot shows the CPA.

The C172 was tracked via radar and initially identified through Mode S data. Approximately 3:30min before CPA, the C172 became a primary-only contact with the altitudes shown on the diagram at the head of the report calculated using GPS data captured on the CAA's Airspace Analyser Tool with appropriate pressure variations applied to enable a direct comparison with the C152. The C152 was tracked via radar throughout and identified via Mode S data.

The C172 and C152 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 C172 pilot was required to give way to the C152.[3]

Summary

An Airprox was reported when a C172 and a C152 flew into proximity at Birch (disused) airfield at 1207Z on Monday 17th March 2025. Both pilots had been operating under VFR in VMC and neither had been in receipt of a Flight Information Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, ADS-B track data 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.

Members firstly considered the actions taken by the C172 pilot, noting that they had been returning their aircraft to its home base following servicing and that they had carried a popular electronic conspicuity unit which had warned the pilot of the presence of the C152 though at a late stage (**CF3**) and which had then enabled the pilot to visually acquire the C152 shortly before CPA (**CF5**). The Board noted positively that the C172 pilot had utilised a Basic Service from Southend which they had switched away from shortly before the Airprox to begin their recovery. Members opined that, where possible, a higher level of service, such as a Traffic Service, might in this case have triggered a warning from Southend of the presence of other aircraft in the area at the point of leaving that service. The Board agreed that the combination of no RT warning and a late TAS alert had limited the C172 pilot to only generic and late situational awareness of the presence of the C152 (**CF2**).

Turning to the actions of the C152 pilot, members noted the instructional nature of the flight and the complexity of the profile being practised. The Board wished to stress once again the importance of electronic conspicuity equipment and the role it can play in such situations, highlighting that this is particularly true in aircraft used for training at all levels. Members recognised that PFL exercises require a high level of concentration and, whilst under instruction, a high degree of conversation, description and critique and felt that the exploitation of an active Traffic Service in such circumstances could have greatly aided the pilot's situational awareness (**CF1**) and could have helped to mitigate against the inevitable distraction that this task had generated (**CF4**). In this case, the lack of both radio and electronic conspicuity equipment had left the C152 pilots with no situational awareness of the presence of the C172 (**CF2**). Although Board members noted that the C152 pilot described having seen the C172, they felt that it had been at or around CPA and therefore too late to react and deemed it an effective non-sighting (**CF6**).

Concluding their discussion, members turned their attention to the determination of the risk of collision. They noted that the C172 pilot had seen the C152 only at a late stage and the C152 pilot had seen the C172 only briefly as it had passed under their wing and that, tied to the limited situational awareness as described above, led members to conclude that safety margins had been reduced much below the norm. The Board was in agreement that there had been a risk of collision (**CF7**), assigning a Risk Category B to this event.

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

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025030			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
	• Situational Awareness of the Conflicting Aircraft and Action			
2	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			
3	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	
	• See and Avoid			
4	Human Factors	• Distraction - Job Related	Events where flight crew are distracted for job related reasons	
5	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
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
	• Outcome Events			
7	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:

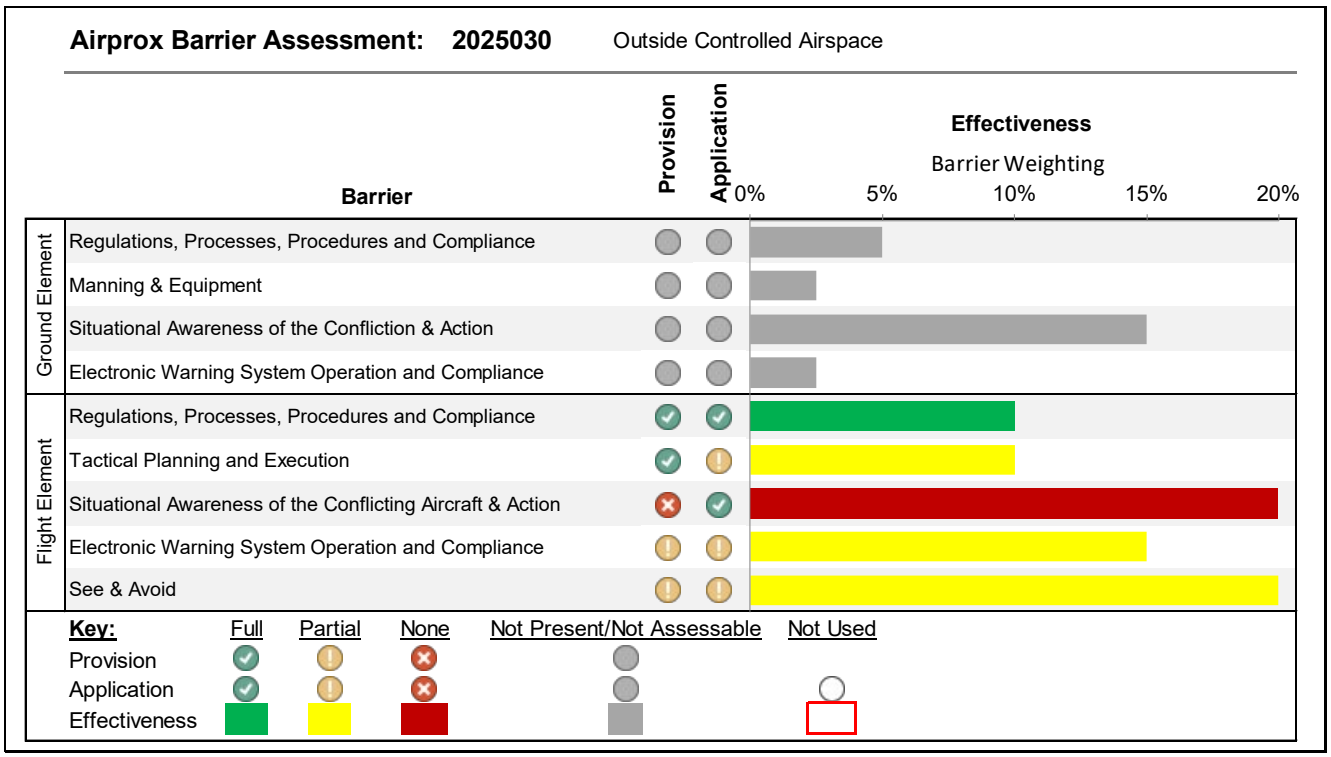
Tactical Planning and Execution were assessed as **partially effective** because the C152 pilot could have sought an active Air Traffic Service whilst performing their training manoeuvres.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C172 pilot had no situational awareness of the presence of the C152 and the C152 pilot had only generic situational awareness of the presence of the C172.

Electronic Warning System Operation and Compliance were assessed as **partially effective** because the C172 pilot received only a late warning of the proximity of the C152.

See and Avoid were assessed as **partially effective** because the C172 pilot achieved only a very late sighting of the C152 and the C152 pilot only sighted the C172 at or around the moment of CPA.

[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: 2025030
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