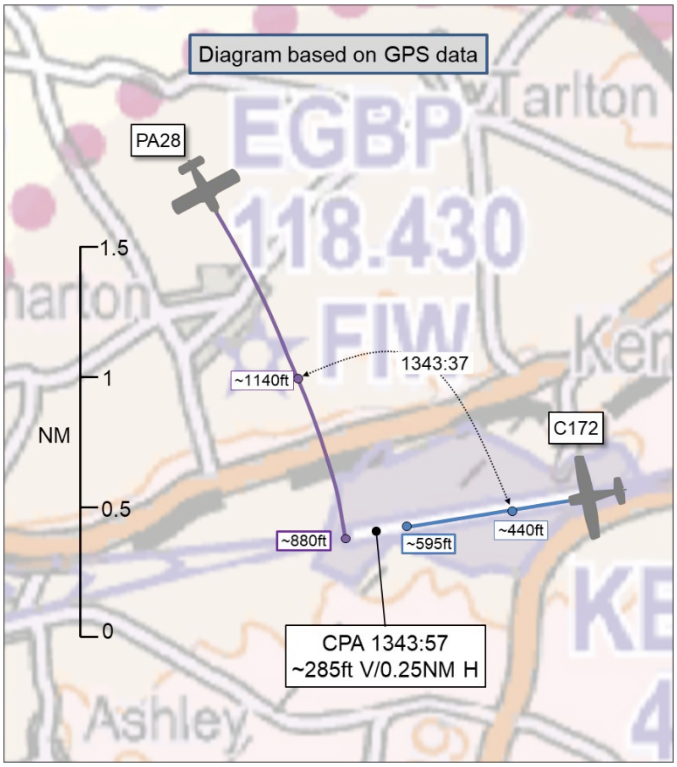
AIRPROX REPORT No 2025129

Date: 01 Jul 2025 Time: 1344Z Position: 5140N 00204W Location: Kemble Aerodrome

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	PA28
Operator	Civ FW	Civ FW
Airspace	Kemble ATZ	Kemble ATZ
Class	G	G
Rules	VFR	VFR
Service	AFIS	AFIS
Provider	Kemble Info	Kemble Info
Altitude	~595ft	~880ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Blue and white	Blue/silver
Lighting	Bcn, strobe & ldg	Wingtip strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	NK	700ft
Altimeter	QNH	QNH (1016hPa)
Heading	260°	170°
Speed	80kt	105kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	200ft V/200m H	Not seen
Recorded	~285ft V/0.25NM H	



THE C172 PILOT reports that the incident occurred on the climbout from RW26 at Kemble. After being given permission to take off at their discretion, they lined up, took off as normal and began to climb on runway heading. Shortly after taking off, they noticed the other aircraft joining crosswind and maintained visual contact throughout as [the other aircraft] moved from their right to left. Because the other aircraft was obviously about to pass in front of them while climbing, they then decided to lower the pitch attitude and reduce their rate of climb to maintain vertical separation. They would estimate that, as the aircraft passed overhead the runway in front of them, it remained above their altitude by around 200ft and passed in front of them by around 200m. Because they could clearly see the other aircraft and were able to level off, they did not immediately consider the collision risk to be significant. However, the Kemble Information AFISO quickly noted that the aircraft appeared to be somewhat lower than the circuit altitude and spoke to them shortly after. They confirmed to [the AFISO] that they did have to lower the nose on climbout to maintain separation.

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

THE PA28 PILOT reports that the flight concerned was an instructional flight for a new group member converting onto [type]. They were pilot in command and instructor, in the right-hand seat. The pilot flying (PF) was a PPL [holder] and was in the left-hand seat. The aircraft has a Primary Flight Display (PFD) incorporating an altimeter, and a conventional analogue 2nd altimeter to the right of the PFD which is easier to see from the right-hand seat that they tended to rely upon when in that seat. The procedures they were following on this and earlier flights were for the PF to handle the flying, navigation and radio. However, as they were approaching Kemble, [the PF] asked if they would handle the radio for the arrival, so they did so. They were passed the arrival information including the QFE. It transpired that the PF did not set the QFE on the 2nd altimeter, but they did not notice this omission. The PF descended deadside, ostensibly to 1000ft height, while slowing down and lowering the undercarriage. They [as instructor] realised it looked very low and said as such to the PF, checked the 2nd altimeter, saw 1000ft but then noted that the QNH was still set, and instructed the PF to climb immediately to 1000ft circuit

height. However, the climb took longer than it should have done as insufficient power was initially added. After passing RW26 upwind threshold, they were advised by [the AFISO] they had been in close proximity to departing traffic. Neither the PF nor [the instructor] saw the traffic at any stage. During the descent they had been watching out in all directions for other deadside traffic, while approaching the threshold they looked to their left along the departure runway, and while approaching the downwind leg from crosswind looked left and right for downwind traffic.

The flight had been proceeding well and the PF had been handling the aircraft competently. However, the fact that they asked them at a late stage to handle the radio was an indication [that the PF] was finding the workload high, but they [as instructor] missed the clue at the time. [They opined that], with hindsight, that was an error on their part. Presumably due to overload, the PF omitted to set QFE on the 2nd altimeter, but crucially they did not check. This was an obvious error on their part. The aircraft descended too low and it was only when they realised, they were very low they noticed the altimeter was still on QNH, whereupon they instructed the PF to climb. However, [the PF] was slow to add power (due, they later said, to *"fear of turbo over boosting")* which delayed the climb. This was another error on their part as they should have taken control at that point and initiated an immediate climb. [They considered that] overall, it was clear to them that they made a series of errors that they were advised culminated in an Airprox. [The instructor felt that] there were obviously a lot of learning points for them arising from this, which they will address and they looked forward to the results of the UKAB [report] to assist in that learning process.

THE KEMBLE AFISO reports that [the PA28] came crosswind below circuit height, coming close to the traffic climbing out which was [the C172]. [The PA28 pilot] was informed of the circuit height on QFE 999hPa. [The pilot of the C172] was asked if they saw the crosswind traffic and they replied they did, stating that they levelled off. [The PA28 pilot] was asked if they saw the traffic climbing away and they said they did not. The Tower assistant spoke with the PIC (Instructor) after landing and, when asked their altitude, they said that they were at 1000ft on the QNH.

The AFISO perceived the severity of the incident as 'High'.

Factual Background

The weather at Brize Norton was recorded as follows:

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METAR EGVN 011320Z 31005KT 9999 FEW046 BKN180 28/17 Q1014 NOSIG RMK BLU BLU=
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Analysis and Investigation

CAA ATSI

The following includes a review of the Airport reports, the RTF and area radar replay. The Airprox itself occurred when both aircraft were below radar coverage and so was not viewable.

Timeline:

At 1342:12 the pilot of [the C172] reported ready for departure but received no reply.

At 1342:18 the pilot of [the PA28] called Kemble. They did not pass any positional or level information (the aircraft was 3.7NM north-northwest of Kemble at 2200ft tracking south-southeast).

The AFISO replied to the pilot of [the C172] first, instructing them to line-up on RW26 and to report lined-up, which was read back by the pilot.

Then at 1342:30 the AFISO advised the pilot of the PA28 that Kemble was on RW26 left-hand and passed the QFE. The AFISO then instructed the pilot to report overhead. The pilot read back the runway in use, the circuit direction and the QFE. The instruction to report the overhead was acknowledged with *"wilco".*

The AFISO then warned the pilot of [the C172] that Aston Down gliding site was active which was acknowledged by the pilot.

At 1342:58 the pilot of C172 reported lined-up on the runway. The AFISO advised them of an aircraft ahead of them: *"traffic climbing away"* and was given a discretionary take-off.

At 1343:16 another aircraft changed frequency to Brize Norton followed by, at 1343:42, the AFISO advising a second pilot that it was a Basic Service to which they received no reply, but the information was not repeated.

At 1343:55 the pilot of [the PA28] reported overhead. The aircraft was 0.5NM west-northwest of the airfield at a height of approximately 800ft (snapshot of the radar replay with the aircraft's level being displayed as a FL, Figure 1):

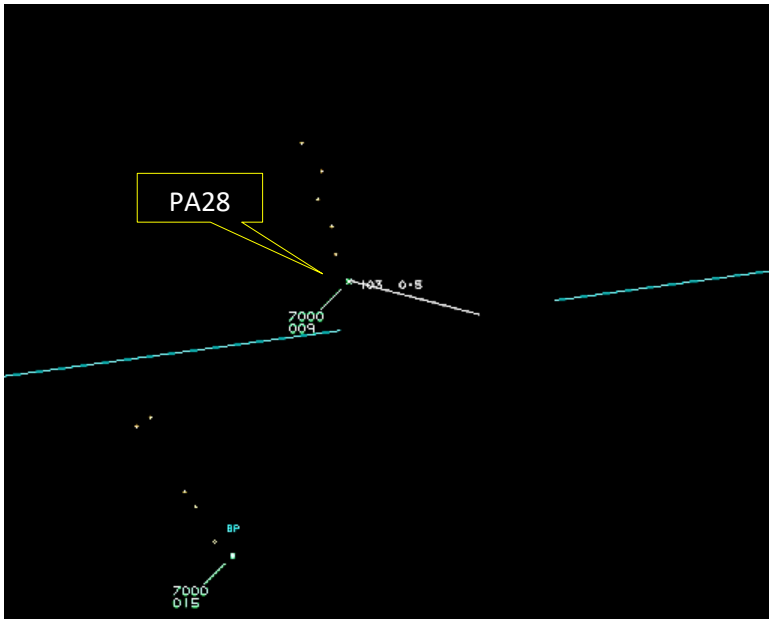


Figure 1 – Time 1343:55

The AFISO instructed them to report crosswind, and the pilot advised they were already crosswind.

The AFISO replied at 1344:05 *"*(c/s) *you're very low – you've traffic climbing away".* The pilot's response was not discernible. The AFISO went on to advise the pilot of [the PA28] that the circuit height was 1000ft on the QFE of 999hPa.

When questioned a short time later, the pilot of [the C172] confirmed they had been visual with [the PA28 when it was crosswind].

Observations from ATSI:

The pilot of [the PA28] did not complete an overhead join, routeing straight from the north into a crosswind position, well below circuit height. They [may not] have had time to assimilate the traffic situation and integrate with the existing traffic pattern.

Traffic Information was not passed by the AFISO on [the C172] when the [PA28] pilot reported in the overhead. The unit investigation does not mention this, and the AFISO's report does not state when they actually became visual with [the PA28]. It is possible that the AFISO was anticipating a standard overhead join from the pilot of [the PA28], in which case [the C172] would not have been relevant traffic at that time.

However, when the pilot of [the PA28] reported already established crosswind immediately following their overhead call, and the AFISO spotted the confliction, generic Traffic Information (no aircraft type) was passed to the pilot of [the PA28] on [the C172].

Kemble Aerodrome

From available online systems the initial call was made very late, to the point where the pilot had already entered the ATZ, where the altitude would have suggested a crosswind join and not the overhead join expected.

The timeframe between initial contact and the AFISO warning the pilot they appeared very low when joining crosswind suggests a crosswind join was flown, possibly on QNH, which would place the aircraft at 600ft AGL, not the 1000ft expected or the 800ft suggested by the PIC.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were identified using Mode S data. The PA28 was seen approaching the overhead of Kemble but the radar track was lost temporarily during a descent through 900ft altitude in the vicinity of the airfield overhead. The C172 was not detected on radar until after CPA. Further analysis of aircraft tracking software was undertaken and, likewise, the C172 appeared after CPA. Both aircraft were detected using MLAT data, with no ADS-B emissions detected.

Both pilots provided the GPS track data from their respective aircraft navigation equipment and CPA was assessed to have occurred at 1343:57 with a separation of approximately 285ft vertically and 0.25NM laterally.

The C172 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 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 C172 and a PA28 flew into proximity at Kemble Aerodrome at 1344Z on Tuesday 1st July 2025. Both the C172 and PA28 pilots were operating under VFR in VMC in receipt of an AFIS from Kemble Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data for both aircraft, 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 looked at the actions of the C172 pilot and noted that the pilot had been given a discretionary take-off clearance by the AFISO prior to the PA28 pilot calling in the overhead, yet during the C172's take-off the PA28 pilot had called *'overhead'* and then advised that they had been crosswind within a 10sec timeframe. Members therefore agreed that, at the time the C172 pilot had initiated their take-off, the pilot had had no situational awareness of the PA28's position relevant to the situation (**CF10**). The Board noted that the C172 pilot had needed to alter their climb profile to remain below and clear of the PA28, and members agreed that the C172 pilot had clearly been concerned by the proximity of the PA28 (**CF12**).

The Board then turned their attention to the actions of the PA28 pilot and noted that the pilot flying (PF) had been under instruction as they familiarised themselves with the aircraft and had asked the instructor to make the RT calls as they had approached Kemble. The Board noted that during their joining procedure the PA28 pilot, having been asked to call overhead, had made the call while 0.5NM to the west-northwest of the airfield, and members agreed that by incorrectly calling overhead, and thereby

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

implying an overhead join, the PA28 pilot had ineffectively communicated their intentions to the Kemble AFISO (**CF5**). The Board noted that the PA28 pilot had proceeded to join the circuit crosswind, instead of via the overhead, and had descended below circuit height whilst doing so. Members agreed that the PA28 pilot's join had neither complied with circuit procedures (**CF4**) nor been effectively executed (**CF6**). The Board noted that the PA28 had been positioned very low over the climbout area and members further agreed that the PA28 pilot had not conformed with the pattern of traffic formed as they overflew the departing C172 (**CF7**). The Board continued the discussion by noting the altimetry issues, and that the PF had not reset their altimeter to QFE. Members agreed that the altimeter had been incorrectly set and that this would account for the initial descent below circuit height (**CF8**). The Board felt that instructor intervention might have been more prudent under the circumstances, recognising that the PF had already requested a workload reduction and had then flown too low, and members agreed that during the mentoring process the instructor had missed checking the PF's altimeter subscale setting (**CF9**). The Board noted that the PA28 pilot had stated that they had not seen the departing C172, despite the AFISO's departure instruction to the C172 pilot and looking out for traffic. Members agreed that the PA28 pilot had had no situational awareness of the departing C172 (**CF10**) because they had become task saturated and had not seen the C172 on the climbout (**CF11**).

The Board then considered the actions of the Kemble AFISO and noted that, after they had provided the airfield information, they had instructed the PA28 pilot to call overhead, which had been acknowledged by the PA28 pilot. The Board further noted that the AFISO had not provided Traffic Information on the arriving PA28 to the departing C172 pilot, likely because it had not been considered relevant traffic at the time. However, some controller members thought that it may have been prudent to have passed the information anyway. The Board noted that the PA28 pilot's overhead call had, misled the AFISO into expecting an overhead join and that they had not expected the PA28 pilot to then state that they had already been on crosswind when asked to report crosswind. Members agreed that, at this point, the AFISO had had inaccurate situational awareness on the actions of the PA28 (**CF3**). They felt, however, that the AFISO had successfully captured the situation by passing generic Traffic Information on departing traffic, whilst also telling the PA28 pilot that they had been *'very low',* and members agreed that the AFISO had detected the conflict late when they had realised the PA28 had been crosswind (**CF1**) and had become concerned by the PA28's proximity to the departing C172 (**CF2**).

Concluding the discussion, members considered the risk of collision. It was agreed that the pilot of the PA28 had not joined the circuit correctly, or as announced, and had not sighted the C172. Members concluded that safety margins had been reduced but agreed that the pilot of the C172 had taken timely and effective avoiding action on sighting the PA28. Members were satisfied that the risk of collision that had existed had been averted and assigned a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025129			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Human Factors	• Conflict Detection - Detected Late	An event involving the late detection of a conflict between aircraft	
2	Human Factors	• Expectation/ Assumption	Events involving an individual or a crew/ team acting on the basis of expectation or assumptions of a situation that is different from the reality	Concerned by the proximity of the aircraft
3	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
4	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			

5	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
6	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
7	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
8	Human Factors	• Operation with Incorrect Altimeter Setting	An event involving the incorrect setting of functions associated with Altimeter instruments	
	• Situational Awareness of the Conflicting Aircraft and Action			
9	Human Factors	• Mentoring	Events involving the mentoring of an individual	
10	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			
11	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
12	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

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 AFISO had inaccurate situational awareness regarding the PA28's joining procedure.

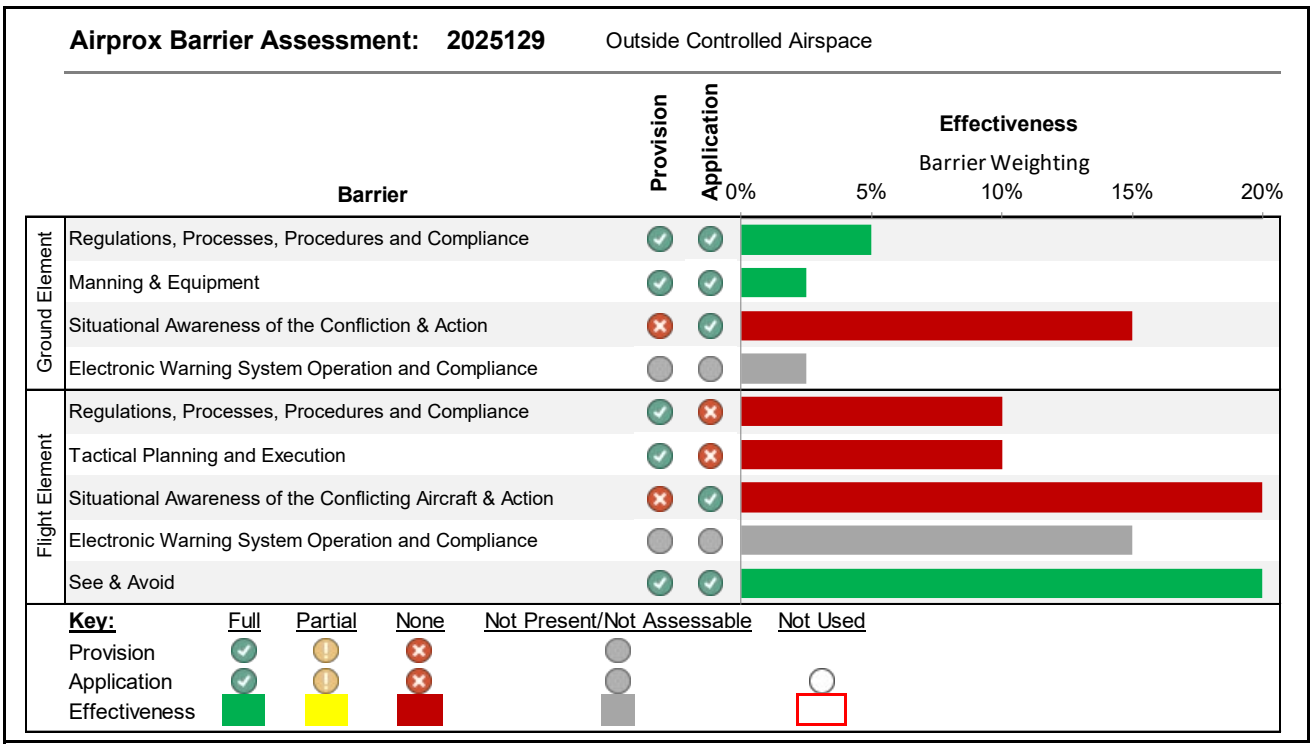
Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the PA28 pilot did not conform with circuit joining procedures.

Tactical Planning and Execution was assessed as **ineffective** because the PA28 pilot's overhead call was incorrect because they joined crosswind instead of via the overhead.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C172 pilot had no situational awareness of the intentions of the PA28 pilot and the PA28 pilot had no situational awareness of the presence of the C172.

[3] 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: 2025129
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