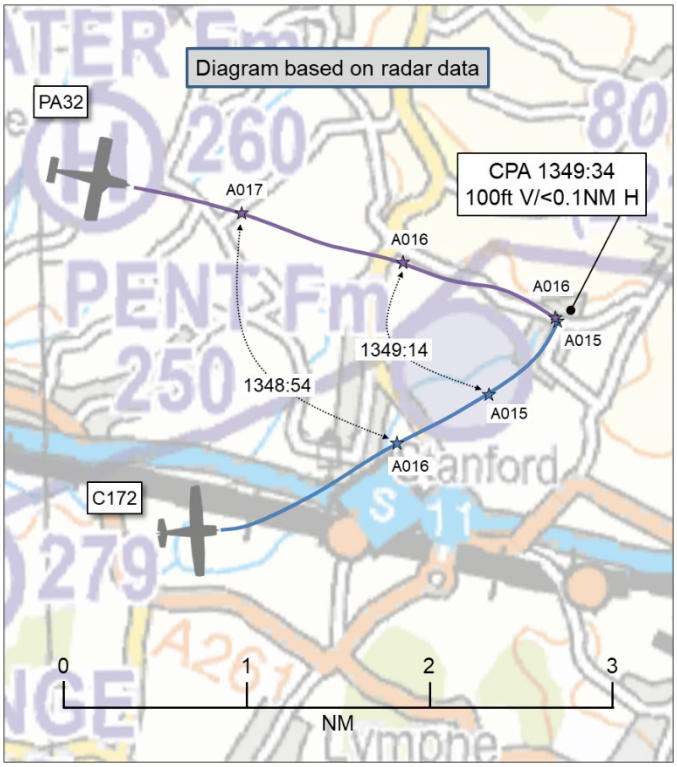
AIRPROX REPORT No 2024180

Date: 01 Aug 2024 Time: 1350Z Position: 5107N 00104E Location: Pent Farm

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	PA32
Operator	Civ FW	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	SafetyCom	Lydd
Altitude/FL	1500ft	1600ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White	White
Lighting	Beacon	Strobes, nav, landing
Conditions	VMC	VMC
Visibility	5-10km	5-10km
Altitude/FL	1500ft	1800ft
Altimeter	QNH (1012hPa)	QNH
Heading	070°	100°
Speed	100kt	135kt
ACAS/TAS	Not fitted	SkyEcho
Alert	N/A	None
Separation at CPA		
Reported	50ft V/0m H	"*not seen*"
Recorded	100ft V/<0.1NM H	



THE C172 PILOT reports that they joined from the west for RW07 [at Pent Farm] with a standard overhead join on runway heading at 1500ft QNH, and made blind calls on SafetyCom. Upon turning downwind, they saw an aircraft, [the PA32], was very close, 1/4NM or less, and very slightly above. There was also a Spitfire taking avoiding action. The [PA32] passed over them with very little separation and before they could take avoiding action. They recognised the [PA32 as being associated with the Spitfire]. The [pilot of the PA32] did not take avoiding action.

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

THE PA32 PILOT reports that they were flying in formation with the Spitfire at echelon-left at approximately 1800ft. They were routeing from Ashford to just north of Folkestone for a sortie along the coastline. Visibility at the time was around 7km. They had just left a Traffic Service from Farnborough and had a Basic Service from Lydd. They hadn't seen anything when the Spitfire pilot reported 'traffic'.

Following a post-flight debrief with the Spitfire pilot, they believe the aircraft was in their blind spot, passing slightly lower than them from right-to-left. They had no warning from Lydd and the controller confirmed the aircraft wasn't working Lydd at the time. Having visited the Lydd Tower several times, [they believe that] they monitor ADS-B and would usually have prompted them of other aircraft in the vicinity.

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

THE SPITFIRE PILOT (as a witness) reports that they were on a formation sortie out to Dover with two aircraft, [the PA32] and the Spitfire. The lead aircraft was the PA32 with the Spitfire joining east of Ashford at around 1400 at 1500ft QNH. As [the pilot of the Spitfire] was joining line-astern to position echelon-left, they spotted the C172 at fairly close proximity from right-to-left slightly lower altitude. They

immediately called on their company frequency "*Traffic, Traffic, Break Break Break*". [The pilot of the Spitfire] broke to the right and upwards as the C172 cleared past the front of the PA32 to the left.

After their return, they debriefed the event and deduced that, due to the seating position of the PA32 pilot (a low wing aeroplane) and the position of the conflicting traffic from a lower right-to-left track, the likelihood of the PA32 pilot seeing and avoiding was significantly reduced. Whereas, [the pilot of the Spitfire] was in a lower position and joining from line-astern which allowed them greater opportunity to see and avoid the conflict. They were operating within Class G airspace [and there is] no ATZ over Pent Farm, nor is there a published join or circuit. The [company] runs transponders and [EC devices] in their aircraft to mitigate the risk of collision. There was no alert on either of the pilot's screens to warn of the presence of the C172.

THE LYDD CONTROLLER reports that they were working as Lydd Approach at the time of the reported incident. [The pilot of the PA32] was provided with a Basic Service as they flew towards Folkestone and Dover, joining in formation with a Spitfire.

Initial contact was made at 1341 when [the PA32] was 2NM north of Headcorn at 2200ft AMSL. [The pilot of the PA32] said they were joining a Spitfire in formation then routeing via Folkestone and Dover. They passed Folkestone at 1351 and Dover at 1358 before switching [to an en-route frequency] at 1402. At no point did [the pilot of the PA32] report an Airprox or traffic in their vicinity.

[The Lydd controller] was subsequently made aware that [the pilot of the C172] had filed an Airprox report. [The pilot of the C172] was not in contact with Lydd Approach before, at or after the reported incident.

Factual Background

The weather at Lydd was recorded as follows:

```
METAR EGMD 011350Z 17005KT 140V220 9999 FEW030TCU 26/19 Q1012
```

Analysis and Investigation

Lydd Unit Investigation

The incident was reported to the Unit on the 1st August 2024. The investigation was delayed due to annual leave.

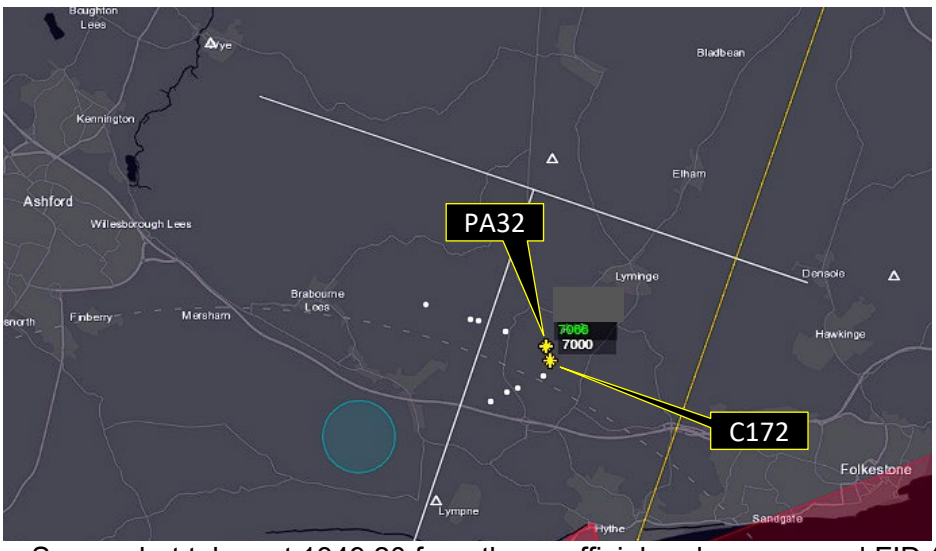


Figure 1 – Screenshot taken at 1349:20 from the unofficial and unapproved FID (which is inaccessible from Lydd Tower)

The ATCO was with an assistant at the time. The ATCO did not report an increase in workload. Flight Progress Strips and equipment were not a contributing factor.

The investigation took place and found that no action could have reasonably been taken by the ATCO on duty. The reporting pilot was not in communication with Lydd at the time of the incident, so could not have been warned of traffic in the vicinity. Pent Farm is known to the Unit, as are several other strips in the area. It is marked on the charts at 9.9NM from Lydd.

CAA ATSI

ATSI has reviewed the reports for this occurrence and it is straightforward in that the Lydd controller would not have been aware of the presence of [the C172] and therefore could not have passed Traffic Information.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. Both aircraft could be positively identified from Mode S data (Figure 2). The diagram was constructed and the CPA determined from the radar data.

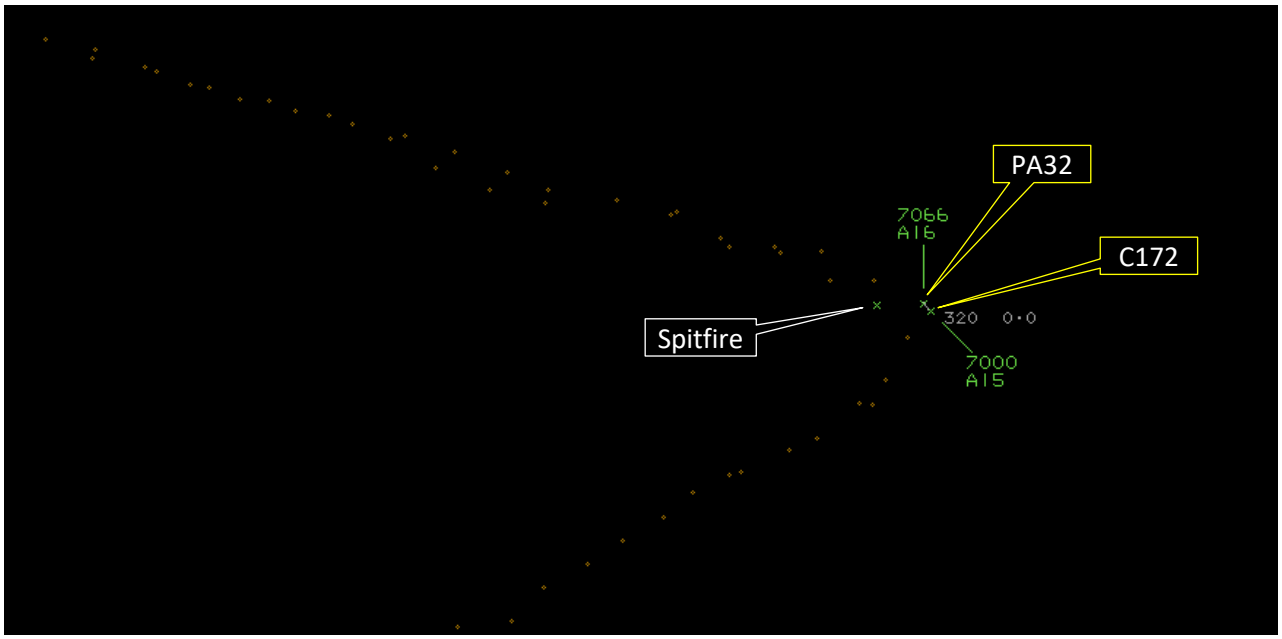


Figure 2 – CPA at 1349:34

Figure 3 – The tracks and relative positions of the Spitfire, PA32 and C172

The C172 and PA32 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] If the incident geometry is considered as converging then the PA32 pilot was required to give way to the C172.[2] 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.[3]

Summary

An Airprox was reported when a C172 and a PA32 flew into proximity at Pent Farm at 1350Z on Thursday 1st August 2024. The C172 pilot was operating under VFR in VMC, listening out on the Safetycom frequency. The PA32 pilot was operating under VFR in VMC and in receipt of a Basic Service from Lydd.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the air traffic controller involved. 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 pilot of the C172. Members noted that they had tuned their radio to the SafetyCom frequency and had made blind-calls during their approach to Pent Farm. Members agreed that they had been tuned to the most appropriate frequency for their approach and landing, however, it was also agreed that it may have been prudent to have contacted the Lydd controller (before tuning to the SafetyCom frequency) to have relayed their intention to descend towards Pent Farm (**CF2**). This, members agreed, would have provided some situational awareness for the Lydd controller and any pilots tuned to the Lydd frequency. It may have also provided an opportunity for the pilot of the C172 to have gleaned some awareness of the traffic situation in their vicinity. Members noted that the C172 had not been fitted with an additional EC device which, on this occasion, may also have provided some awareness of nearby traffic. It was agreed that it had been the case that the pilot of the C172 had not had situational awareness of the presence of the PA32 until it had been visually acquired (**CF4**). Members also agreed that having sighted the PA32 at the moment of CPA, too late to have taken any avoiding action, effectively constituted a non-sighting (**CF6**).

The Board next turned their attention to the actions of the pilot of the PA32. A member with knowledge of the particular task with which they were engaged, and the regularity at which such flights are believed to be conducted, commented that the precise location of several grass strips in that area would, most probably, have been well known. As such, the member suggested that it may have been more prudent to have transited the area along a track, and at an altitude, where they would have been less likely to have encountered circuit traffic at such strips. Members agreed that the EC device fitted to the PA32 would not have been expected to have detected the presence of the C172 (**CF5**). Consequently, and acknowledging that there had not been a common radio frequency in use between the pilots, members agreed that the pilot of the PA32 had not had situational awareness of the presence of the C172 (**CF4**). It was further agreed that, as the pilot of the C172 had performed an overhead join at Pent Farm, it had been the responsibility of the PA32 pilot to have avoided (or to have conformed with) that pattern of traffic. Accordingly, members agreed that the pilot of the PA32 had not avoided the pattern of traffic at Pent Farm (**CF3**).

Members pondered the call made by the pilot of the Spitfire on the 'company' frequency to which a radio in the PA32 had also been tuned. Whilst it was appreciated that the pilot of the Spitfire had attempted to alert the pilot of the PA32 to the proximity of the C172, members felt that a 'directionless' alert may have introduced confusion and encouraged the pilot of the PA32 to have made an abrupt manoeuvre that may have inadvertently decreased separation from the C172. Notwithstanding, members agreed that the pilot of the PA32 had not visually acquired the C172 (**CF6**) and, from their

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(2) Converging.
[3] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

understanding of the Spitfire pilot's narrative report, surmised that the C172 had been obscured from the view of the PA32 pilot (**CF7**).

Members next pondered the comments made by the pilot of the PA32 regarding the role of the Lydd controller. Members were keen to emphasise that, under the terms of a Basic Service, it is the pilot's responsibility to avoid other traffic, unaided by a controller. Reiterating the guidance provided in CAP774, members agreed that 'it is essential that a pilot receiving a Basic Service remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight'. Consequently, in consideration of the actions of the Lydd controller, members agreed that they had not been required to have monitored the flight of the PA32 (**CF1**) and indeed, had not been able to have done so without surveillance equipment.

Concluding their discussion, members turned their attention to the determination of the risk of collision. Members wished to highlight that the safety barriers of 'Situational Awareness', 'Electronic Conspicuity' and 'See and Avoid' had been ineffective in this encounter and, as such, safety margins had reduced much below the norm. Members were in agreement that there had been a risk of collision (**CF8**) and that it had been mainly by chance that the altitude of the PA32 had been slightly above the circuit-height of the C172 in operation at Pent Farm. The Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024180			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
	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	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			
5	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
	• 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
7	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
	• Outcome Events			
8	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:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because the Lydd controller had not been required to have monitored the flight of the PA32 under the terms of a Basic Service.

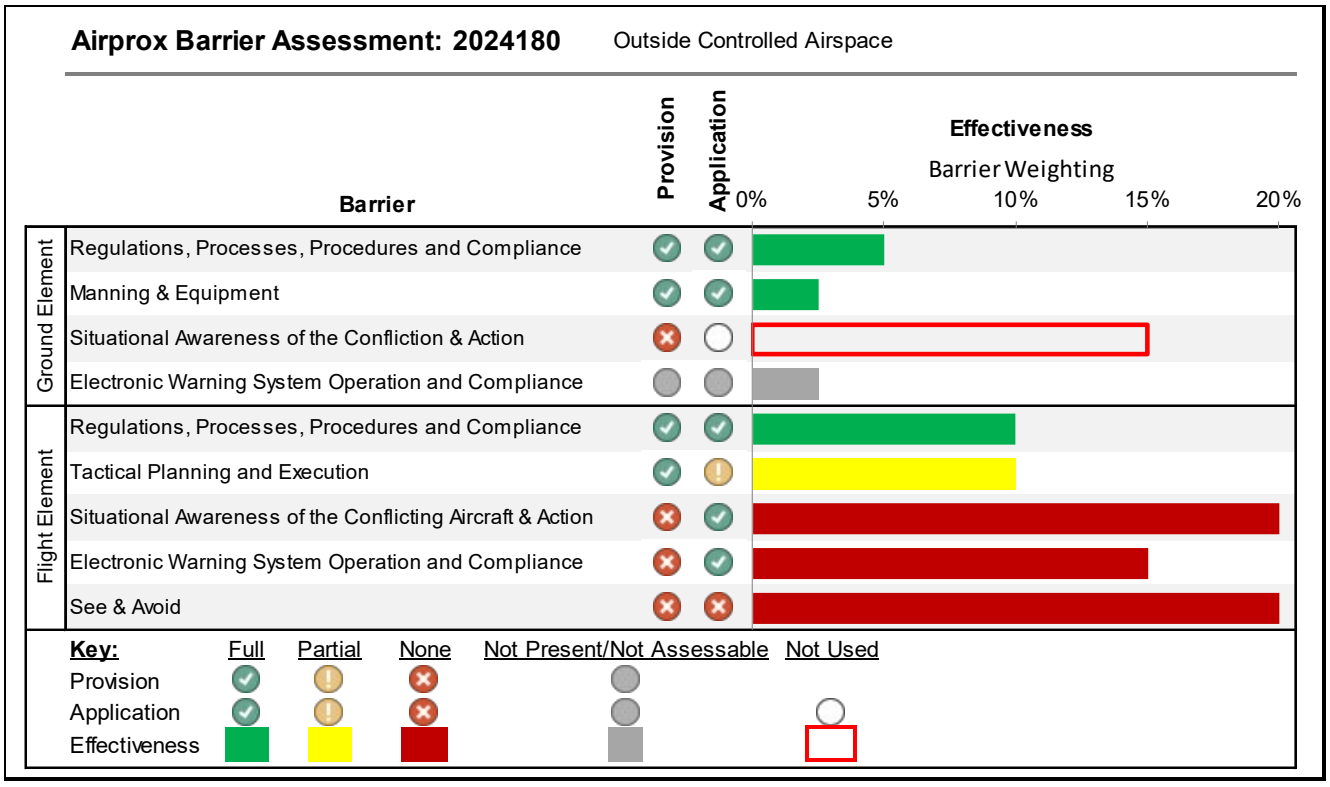
Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the pilot of the PA32 had not effectively avoided the circuit pattern at Pent Farm as formed by the C172.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had situational awareness of the presence of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC device fitted to the PA32 would not have been expected to have detected the presence of the C172.

See and Avoid were assessed as **ineffective** because neither pilot had sighted the other aircraft before CPA.



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