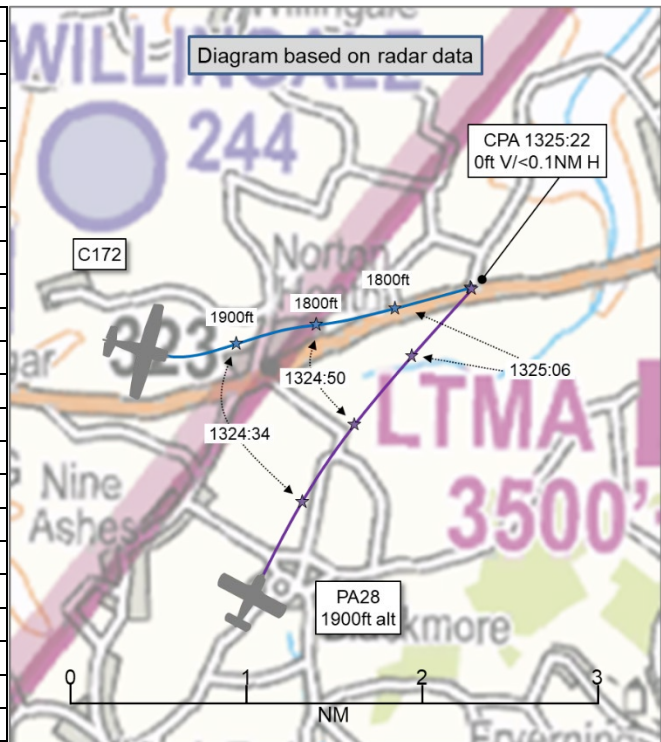


**AIRPROX REPORT No 2025231**

Date: 05 Nov 2025 Time: 1325Z Position: 5143N 00020E Location: Norton Heath

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Southend Radar	Southend Radar
Altitude/FL	1900ft	1900ft
Transponder	A, C, S	A, C, S
<b>Reported</b>		
Colours	White, red	White, blue, gold
Lighting	Nav, bcn, ldg	Bcn
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2100ft	2000ft
Altimeter	QNH (1008hPa)	QNH
Heading	NR	'Northeast'
Speed	100kt	~100kt
ACAS/TAS	SkyEcho	Not fitted
Alert	None	N/A
	<b>Separation at CPA</b>	
Reported	35ft V/15m H	Not seen
Recorded	0ft V/<0.1NM H	



**THE C172 PILOT** reports that their departure was as expected, with no issue and no visible traffic. Once clear of the Southend CTA, [they had] continued their climb to 2100ft towards VRP Ongar and levelled off. Shortly after changing frequency to Southend Radar, [the pilot had been] listening before making their request. An aircraft was first seen over their right shoulder between their 4 and 5 o'clock, behind their right wing and just below. [The pilot believes it to have been] at less than 15m horizontal distance. The next [sighting] was a few seconds later out of their left window. After the initial shock, [the pilot had] written as much detail down as they could remember. They continued their flight for approximately 1hr 50min with no further issues or concerns. [They had been operating in] Class G airspace below the London TMA, [the base of] which is at 2500ft.

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

**THE PA28 PILOT** reports that they had been flying as PICUS (Pilot-In-Command Under Supervision) with a senior examiner as it was a licence proficiency check for SEP renewal, which they passed. A full briefing was carried out prior to the flight, including the requirement to keep a good lookout. Their tracks on SkyDemon and FlightRadar confirm that they were indeed in the location of Radley Green at the stated time. They were flying straight-and-level at 2000ft in a northeasterly direction, at the time aiming for Earls Colne airfield as a simple navigation exercise. They did not engage in any manoeuvring flying skills exercises until later in the flight. They had both kept a close lookout for traffic, and did not see the Cessna 172 at any time, so it is difficult to comment on possible reasons for the reported Airprox as the visibility was very good (>10km). They were receiving a Basic Service from Southend Radar, having recently taken off from [departure airfield]. They did not hear on the radio any warning relating to other aircraft around the time of the incident, although they do realise that this is not necessarily a provision of a Basic Service. They cannot recall the QNH with certainty, but it was set as given by Southend Radar.

**THE SOUTHEND LARS CONTROLLER** reports that reference to an Airprox was filed by a pilot in the vicinity of Radley Green, Essex. The pilot filing (C172) was squawking 7000 and not in receipt of a service from Southend. The [pilot of the] other aircraft, (PA28), was in receipt of a Basic Service from Southend LARS. [The controller] has nothing further to add as neither [pilot] reported anything via RT or subsequently by phone.

## Factual Background

The weather at Stansted Airport was recorded as follows:

METAR EGSS 051320Z 17011KT CAVOK 16/11 Q1008=

## Analysis and Investigation

### Southend Safety Investigation

Further evidence was taken by a member of the team by way of debrief, and from the ATCO MOR which was retrospectively filed. ATCO 1 had been operating as combined R1/R2 with traffic levels light/moderate. Fully rostering system compliant.

Timeline (filtered for relevant aircraft and calls).

1320. [C172 C/S] (Mode S) first painted on radar, 1NM south of North Weald tracking east indicating A1.1 (climb) squawking 7000 (VFR conspicuity).

1321. [PA28 C/S] (Mode S) first painted on radar, 2NM southwest of Stapleford tracking northeast indicating A1.6 (climb).

1323. [PA28 C/S] made their first call to radar. They were over Kelvedon Hatch tracking northeast indicating A1.9, requesting a BS. They were provided with a BS with correct QNH (1008hPa) and squawk 4575. This was read back. [C172 C/S] was at 3NM northwest tracking east indicating A2.0.

1325:12. Contacts merged, both indicated A2.0.

1325:40. Contacts separated, both indicated A2.0. It is possible, but hard to discern, that [C172 C/S] turned to the right to pass behind.

1329. [C172 C/S] squawked 5050, Southend monitoring code. They were just southeast of Boreham.

1329. [C172 C/S] made their first call to Southend radar. They were at A2.1 with correct QNH (1008 hPa) and had been requesting a BS. They were provided with a BS and squawk 4575. This was read back and they continued to the north.

### Summary

ATCO 1 had been under light/moderate workload and provided the PA28 pilot with a Basic Service. At that time, there was no imminent risk of collision with any other aircraft. The C172 was approximately 3NM to the northwest, but not in receipt of a service, or displaying a monitoring code. Both aircraft continued on converging tracks. However, at the time of convergence, ATCO 1 had been speaking to other participating aircraft. The contacts were seen on radar to merge, indicating the same level. No reports were made on RT. [...]. Continuous flight monitoring is not required to aircraft operating under a Basic Service, although ATCO1 was fully aware of their responsibility where an obvious risk of collision is observed. In Class G airspace, where Rules of the Air apply, meaning that in this instance the PA28 pilot had right-of-way. ATCO 1 did not see the [reported] Airprox and was not aware of it until a subsequent request for information from the CAA.

### Conclusion

Possible Airprox between 2 light aircraft in Class G airspace, one of which was receiving a Basic Service from Southend. No direct ATC involvement.

### ATSI

ATSI has nothing to add to the Southend investigation above.

### UKAB Secretariat

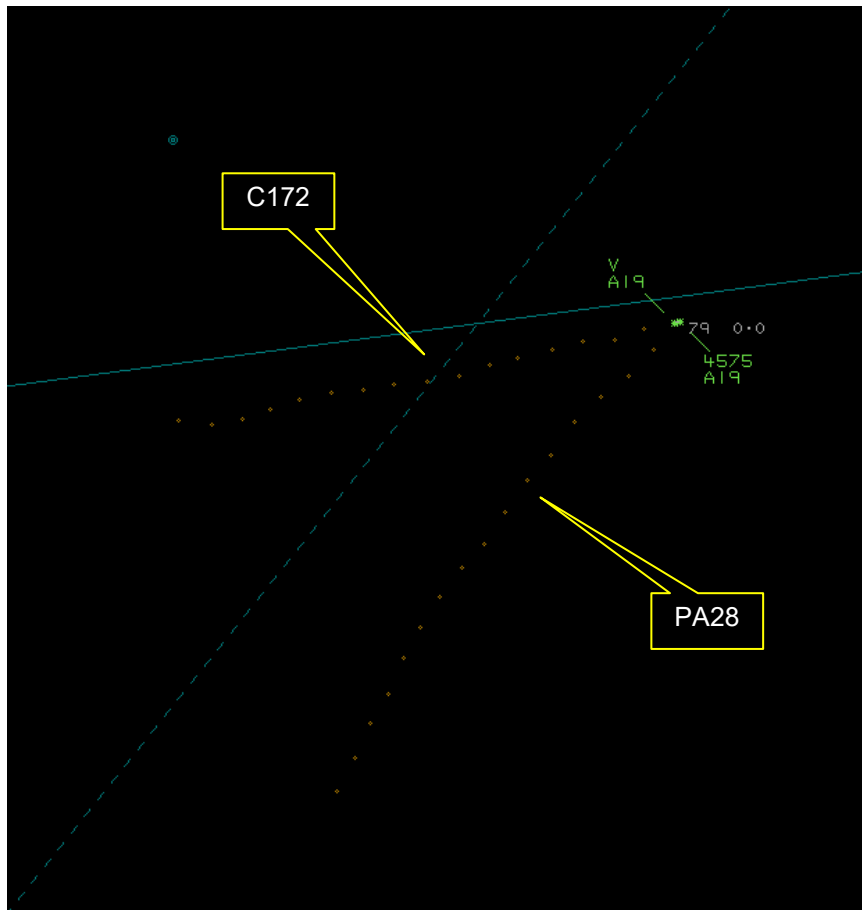


Figure 1: At CPA – 1325:22 0ft V/<0.1NM H

Both aircraft were tracked via radar and identified through Mode S data. Open-source aircraft tracking applications were also checked and the C172, but not the PA28, was visible with reference to ADS-B data sources.

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.<sup>1</sup> If the incident geometry is considered as converging then the C172 pilot was required to give way to the PA28.<sup>2</sup>

### Summary

An Airprox was reported when a C172 and a PA28 flew into proximity at Norton Heath at 1325Z on Wednesday 5<sup>th</sup> November 2025. The C172 pilot was operating under VFR in VMC and had been Listening Out on the Southend LARS frequency, and the PA28 pilot was operating under VFR in VMC in receipt of a Basic Service from Southend LARS.

<sup>1</sup> (UK) SERA.3205 Proximity.

<sup>2</sup> (UK) SERA.3210 Right-of-way (c)(2) Converging.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the air traffic controller involved and reports from the appropriate 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 firstly discussed the actions of the C172 pilot. They noted that they had been in the process of establishing themselves on a FIS but had not, at the time of CPA, established contact with Southend. The Board accepted that this had been unfortunate in this case, as the use of an active air traffic service can greatly improve situational awareness of surrounding traffic and the Board would always advise pilots to utilise one of the providers available as soon as possible in their flight (**CF2**). Although the C172 had been equipped with an electronic conspicuity (EC) capability, it had not been able to detect any electronic emissions from the PA28 (**CF4**) which, when combined with a lack of a FIS, led to the pilot being denied any situational awareness of the presence of the PA28 (**CF3**). The pilot described having seen the PA28 at very close quarters in their 4 o'clock and then to their left-hand side, which the Board members recognised as having been too late to have initiated any significant avoidance action and deemed it to have been effectively a non-sighting (**CF5**).

Members then considered the actions of the PA28 pilot, noting that they had been engaged in a check flight for licence renewal and had therefore been performing internal and external checks as would be expected on such a flight. They had established themselves with a Basic Service from Southend which, although useful, members opined that where it is available a more active service, such as Traffic Service, will likely deliver better situational awareness of surrounding aircraft (**CF2**). The PA28 had not been carrying any EC equipment, which members felt had been a contributing factor to this event and would actively encourage all operators to consider equipping to aid situational awareness. In this case, the PA28 pilot had not received any Traffic Information regarding the C172. When combined with no EC inputs, this had left the PA28 pilot with no situational awareness of the presence of the C172 (**CF3**). As the PA28 pilot had not visually acquired the C172 (**CF5**), they had been unaware of the event and continued their flight to its conclusion.

In reviewing the contribution of the Southend Radar controller, the Board noted that they had been providing a Basic Service, with all of its known limitations (**CF1**), to the pilot of the PA28. Both aircraft had displayed on radar but, at the time of the event, the controller had been engaged with a third, uninvolved, aircraft. As neither aircraft had reported anything on RT or after flight by telephone, the controller had been unaware of the event.

When considering the risk, members acknowledged that this operating area is always busy with traffic constrained by significant volumes of controlled airspace, and this has the tendency to generate natural choke points. This does suggest that making use of active air traffic services where available should be considered, and the carriage and use of EC equipment will likely improve a pilot's situational awareness of other traffic in the environs. In this case, neither pilot had received Traffic Information or had carried EC and both had therefore been reliant on see-and-avoid to identify and avoid threats. The C172 pilot had seen the PA28 only as it had passed beneath them, and the PA28 pilot had not seen the C172 at all, with the Board assessing that providence had played a major part in the event and that a serious risk of collision had existed (**CF6**), awarding this event a Risk Category A.

## **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

### Contributory Factors:

	2025231			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Ground Elements</b>				
• <b>Situational Awareness and Action</b>				
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
<b>Flight Elements</b>				

• Tactical Planning and Execution				
2	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				
3	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				
4	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				
5	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				
6	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: A.

### Safety Barrier Assessment<sup>3</sup>

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, under a Basic Service, there is no requirement for the Southend LARS controller to monitor the flight.

#### **Flight Elements:**

**Tactical Planning and Execution** was assessed as **partially effective** because the C172 pilot could have called earlier for an Air Traffic Service, and the PA28 pilot could have requested a surveillance-based Air Traffic Service.

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

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because the equipment carried by the C172 pilot had been unable to detect any electronic emissions from the PA28.

**See and Avoid** were assessed as **ineffective** because the PA28 pilot had not seen the C172 and the C172 pilot had visually acquired the PA28 only at a very late stage.

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

<b>Airprox Barrier Assessment: 2025231</b>		Outside Controlled Airspace						
<b>Barrier</b>		<b>Provision</b>	<b>Application</b>	<b>Effectiveness</b>				
				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	✗	✗					
<b>Key:</b>		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✓	!	✗	●		○		
Application	✓	!	✗	●		○		
Effectiveness								