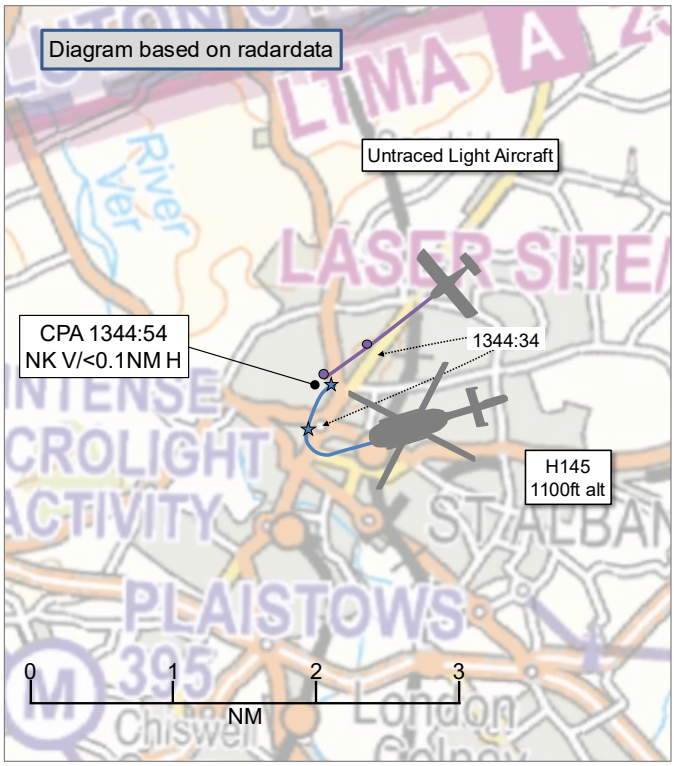
AIRPROX REPORT No 2025220

Date: 06 Oct 2025 Time: 1345Z Position: 5145N 00020W Location: IVO St Albans

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	H145	Unk Light-Aircraft
Operator	HEMS	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	NK
Service	Listening Out	Unknown
Provider	Luton, Elstree	NK
Altitude/FL	1100ft	NK
Transponder	A, C, S	None
Reported		
Colours	Yellow	White
Lighting	Strobe, Lndg, Nav	NK
Conditions	VMC	NK
Visibility	>10km	
Altitude/FL	1100ft	
Altimeter	QNH (1024hPa)	
Heading	Easterly	
Speed	100kt	
ACAS/TAS	ACAS, SkyEcho	
Alert	None	
	Separation at CPA	
Reported	150ft V/150m H	NK
Recorded	NK V/<0.1NM H	



THE H145 PILOT reports that, shortly after departure from one HEMS site to another, located 3NM away, they were startled by an unexpected light-aircraft nearby. The aircraft was observed passing down the left-hand side within an estimated distance of approximately 250m laterally and 250ft vertically above their aircraft. No Traffic or Proximity Alert was received via ACAS, and no contact was detected on [EWS] during the incident. The unidentified aircraft was not observed visually prior to the near pass and was only seen momentarily as it passed. Upon return to base, a review of both ADS-B tracker and FlightRadar24 was conducted in an attempt to identify the aircraft and verify its proximity. No trace or flight data of the aircraft in question was found on either platform. A follow-up call was made to Elstree Airfield to enquire if any other reports had been submitted regarding similar activity. Elstree reported no known incidents or traffic correlating with the description at the time, but did note that several microlights are known to operate from a nearby farm strip at Plaistows Farm. Contact was made with Plaistows Farm, who confirmed that there were no incident reports logged, and only one aircraft was operating that day – this did not match the description of the aircraft involved.

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

THE UNKNOWN LIGHT-AIRCRAFT PILOT could not be traced.

Factual Background

The weather at Luton was recorded as follows:

```
METAR EGGW 061320Z AUTO 25011KT 9999 NCD 18/11 Q1024=
```

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the H145 could be seen and identified using Mode S data, appearing on radar at 1343:53. A primary-only contact could be seen to the northeast of the H145, tracking southwest (see Figure 1). Unfortunately, without a transponder, the light-aircraft could not be identified and the altitude was not known. Further analysis of ADS-B data sources was undertaken but the light-aircraft was not visible on either MLAT or ADS-B. The contact faded from radar at 1346:47. Local microlight clubs were contacted, but the aircraft could not be traced.

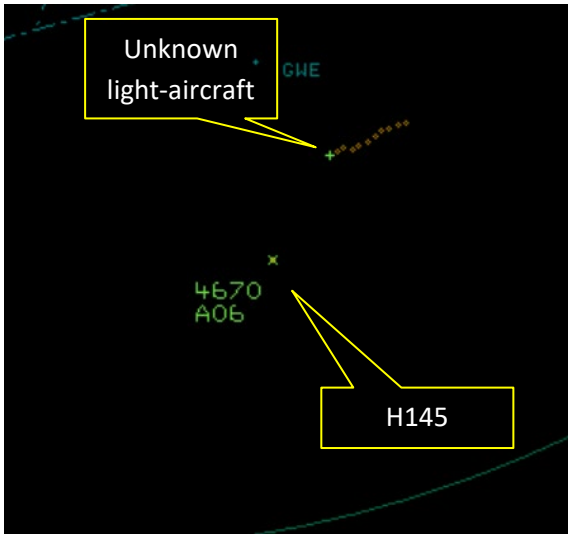


Figure 1 - 1343:53

At 1344:47 the H145 turned from its southwesterly heading onto a northwesterly heading and the two aircraft continued head-to-head.

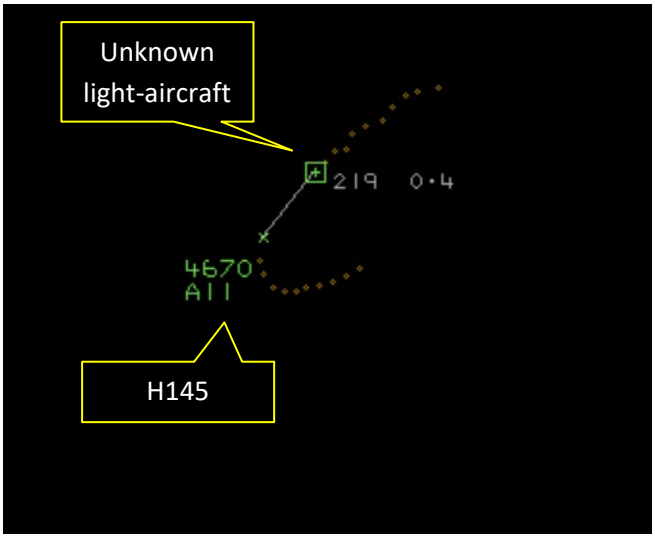


Figure 2 – 1344:47

CPA was at 1344:54 with the primary contact passing down the left-hand-side of the H145 at a range of <0.1NM. Without Mode C or ADS-B data on the light-aircraft, the vertical separation could not be ascertained.

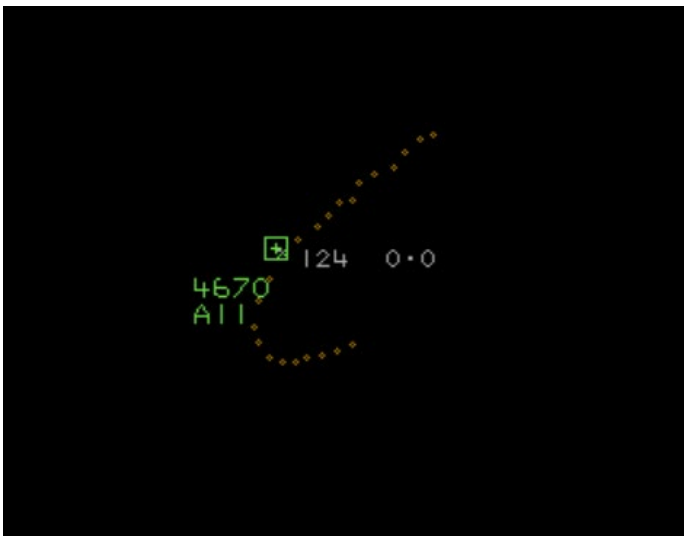


Figure 3 – 1344:54 – CPA

The H145 and light-aircraft 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 head-on or nearly so then both pilots were required to turn to the right.[2]

Summary

An Airprox was reported when an H145 and an unknown light-aircraft flew into proximity in the vicinity of St Albans at 1345Z on Monday 6th October 2025. The H145 pilot was operating under VFR in VMC not in receipt of an ATS, and the light-aircraft could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the H145 pilot, together with 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 looked at the actions of the H145 pilot. They had been transitting from one HEMS site to another that had been close by and, as such, members agreed that there had not been enough time to have established an ATS with any of the local ATSUs. Although the H145 had been fitted with an ACAS and an EWS, the untraced light-aircraft had not displayed transponder data, nor had it appeared on ADS-B data sources, so it had been likely that it had not been equipped with either. Consequently, the equipment on the H145 could not have detected the light-aircraft (**CF2**). Without an ATS or any warnings from their EWS, members agreed that the H145 pilot had not had any prior situational awareness that the light-aircraft had been in the vicinity (**CF1**). Some members wondered whether the H145 pilot could have chosen a different altitude for their transit, they noted that 1000ft was a common height for visual circuits and that there were numerous small airfields in the vicinity. However, members with helicopter experience noted that, with only a few miles between landing sites there had not been enough time to climb higher and they would not have wanted to transit at a lower altitude over the built-up areas, so members agreed that the pilot had been transiting at the optimum height. Members with helicopter experience further noted that it would have been a busy time for the pilot as they identified and then descended into their landing site, with a high cockpit workload, and that although there had been other crew members on-board, their primary role would have been as paramedics. Only once the H145 pilot had turned to begin their descent into their landing site had they become visual with the light-aircraft, which the pilot estimated to have been 250m away and 250ft above, which had caused the pilot to be concerned by its proximity (**CF3**).

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

Members thought that it was unfortunate that, despite extensive enquiries to local minor aerodromes, the light-aircraft pilot could not be traced. Members noted that there were a number of local airfields and farm strips in the area and that the area was also known for being a busy piece of transit airspace, therefore, it had been unfortunate that the light-aircraft had not been fitted with a transponder or any form of EWS or ADS-B equipment which could have alerted the H145 pilot (and other pilots) to its position. Without a report from the light-aircraft pilot, it was not possible to ascertain whether the pilot had been visual with the helicopter as it transited slightly below and to the left of their position.

When determining the risk, members had only the report from the H145 pilot and the radar replay to consider. Some members thought that there had not been enough information with which to assess the risk. However, other members noted that the pilot had reported first sighting the light-aircraft at a range of around 250m and thought that the pilot had described a situation whereby they had been surprised at seeing another aircraft in the vicinity, but that the separation had been enough to exclude the risk of collision. The Chair conducted a vote and, by a majority, it was agreed that there had been no risk of collision, but that safety had been reduced; risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025220			
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	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			
3	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]

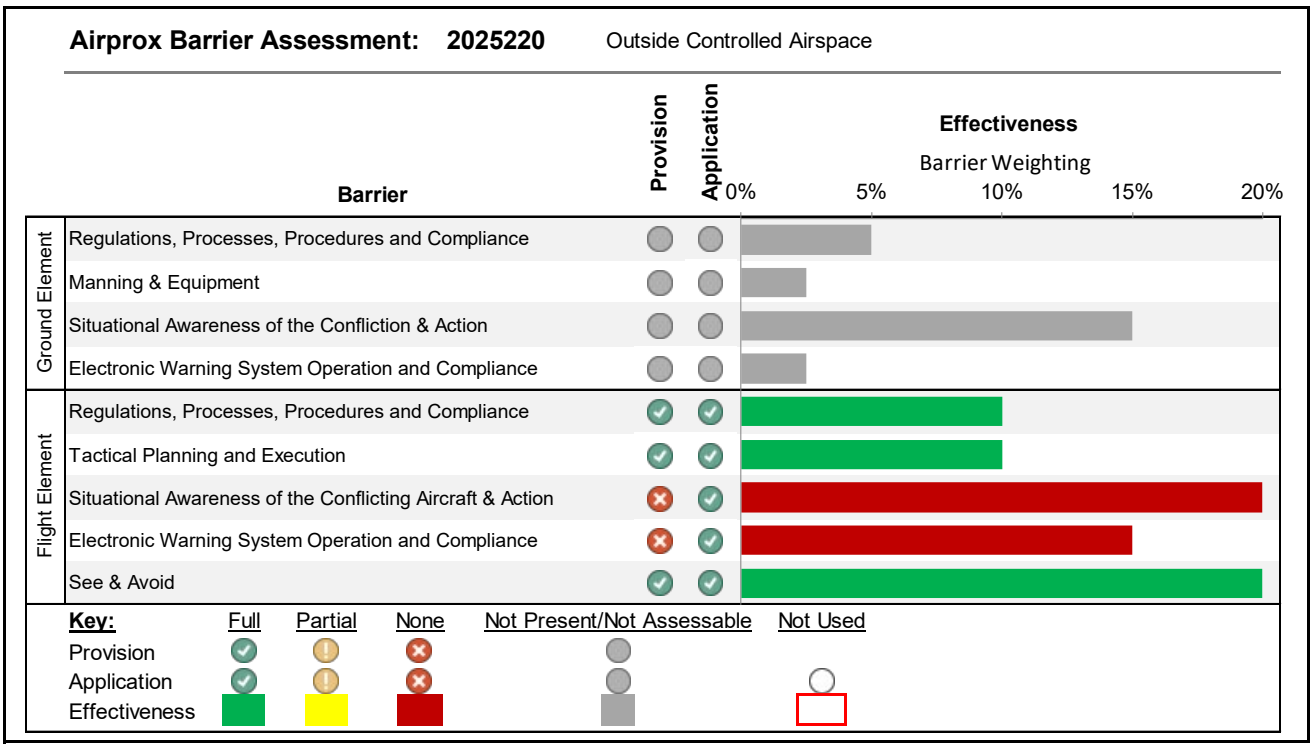
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the H145 pilot had not received any prior situational awareness that the light-aircraft had been in the vicinity.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EWS fitted to the H145 could not detect the light-aircraft, which had not been displaying any transponder or ADS-B data.

[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: 2025220
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