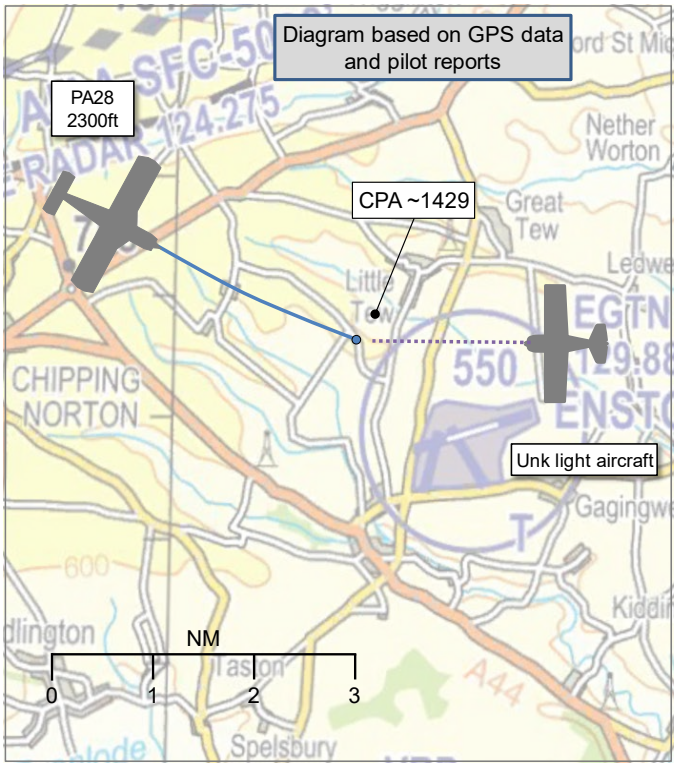
AIRPROX REPORT No 2022225

Date: 24 Sep 2022 Time: 1429Z Position: 5157N 00125W Location: Enstone

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	Unk Light-aircraft
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	NK
Service	AGCS	NK
Provider	Enstone	NK
Altitude/FL	2300ft	NK
Transponder	A, C, S	NK
Reported		
Colours	Maroon, White	Red, White
Lighting	NK	None
Conditions	VMC	NK
Visibility	>10km	NR
Altitude/FL	1800ft	NK
Altimeter	QFE (999hPa)	NK
Heading	115°	NK
Speed	90kt	NK
ACAS/TAS	PilotAware	Unknown
Alert	None	Unknown
Separation at CPA		
Reported	0ft V/10m H	NK
Recorded	NK	



THE PA28 PILOT reports that, as FI and PIC of the PA28, they were returning to Enstone on a trial lesson for a standard overhead join at 1800ft (QFE), when they suddenly saw the other aircraft, which they subsequently discovered was a Skyranger microlight. They immediately took avoiding action, turning left, as did the Skyranger, without which they would have collided. They estimated that they were within 10-15m apart after taking the avoiding action. They immediately reported a near miss to Enstone Radio as did the other pilot but they did not take a note of the registration. They opined that the scenario occurred because the PA28 is a low-wing aircraft and the pilot was not able to see the Skyranger climbing into the overhead in the downwind direction of the Enstone circuit. Conversely, the Skyranger pilot, being in a high-wing aircraft, did not see their PA28 as it was climbing into the overhead, meaning that they did not see each other until they were very close and in danger of colliding.

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

THE UNKNOWN LIGHT-AIRCRAFT PILOT could not be traced.

THE ENSTONE AERODROME OPERATOR reports that on the day in question a fly-in was arranged by the LAA Oxford Strut using the Northside grass runway. This runway is a separate operation at Enstone Aerodrome. However the airfield operator provides an A/G service to all users of the airfield.

During the course of the day there were 82 aircraft active, visitors to the fly-in and resident aircraft operating. The A/G facility on the day was manned by 2 competent operators both having considerable experience at other busy GA airfields. They have commented that the standard of radio discipline and quality of transmission varied considerably during the day, at times being very poor. On or around the time of the incident there were a number of aircraft on frequency, and as such it was difficult to positively identify the second aircraft involved. However if in the report from [PA28 C/S], they have correctly identified the aircraft as a Skyranger, and the timing is accurate, then the likely other aircraft would have been [Skyranger C/S].

Enstone Radio does not have the facility of recording transmissions from aircraft or from Enstone Radio itself. Normally, if one aircraft wishes to talk to another aircraft on the same frequency then the request would be made to the AGO that this takes place. This is important as "inter-aircraft conversations" interferes with what can be the exchange of important information when the frequency is busy. The AGO on duty at the time recalls that both aircraft communicated with each other direct with possibly only [PA28 C/S] giving an abbreviated callsign. At no time did they make a specific report to Enstone Radio that they wished Enstone Radio to take any action. The AGO did not engage with either of the aircraft as the frequency was extremely busy at the time and felt that the matter was best resolved on the ground.

Factual Background

The weather at Oxford was recorded as follows:

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METAR EGTK 241420Z 02008KT 9999 SCT038 16/09 Q1017=
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Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. The PA28 could be seen on the radar joining for the Enstone overhead (Figure 1). No other aircraft could be seen in the vicinity. Based on the aircraft registration suggested by the Enstone AGO, a Skyranger pilot was traced and a report requested. The pilot submitted a detailed report and did not believe that they were the Skyranger involved in the incident, although they remembered an incident being discussed on the RT at the time of their landing. This pilot kindly provided a GPS trace which showed that this Skyranger had landed at 1428, before the PA28 had joined the overhead and therefore was not the aircraft involved in the Airprox. Analysis of GPS data also did not provide any data on any other aircraft in the circuit at the same time that the PA28 was in the overhead and Enstone were not able to offer any other alternative to their original aircraft. Therefore, unfortunately, the light-aircraft pilot could not be traced. At 1428:58, using the NATS single source Clee Hill radar, the PA28 showing in SSR only, appears to make a slight left turn, probably the avoiding action, but no other aircraft could be seen in the vicinity.

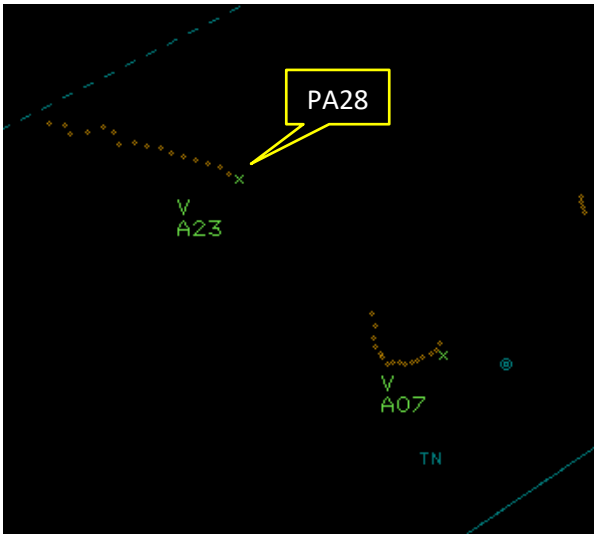


Figure 1 - 1428:07

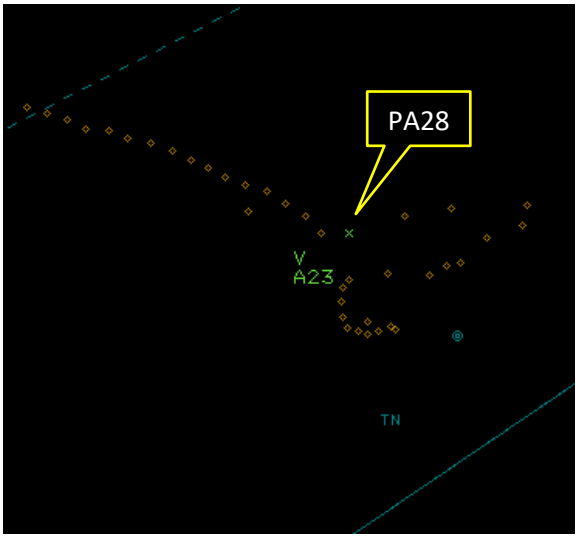


Figure 2 – Probable avoiding action 1428:58

The PA28 and unknown 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] An aircraft

[1] (UK) SERA.3205 Proximity..

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 PA28 and an unknown light-aircraft flew into proximity at Enstone at around 1429Z on Saturday 24th September 2022. The PA28 pilot was operating under VFR in VMC, and in receipt of an AGCS from Enstone. The unknown light-aircraft pilot could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the PA28 pilot, radar photographs/video recordings, and a report from the AGO 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 looked at the actions of the PA28 pilot. They noted that the pilot had been joining for an overhead join, which would have been the preferred method of joining into a busy circuit. Some members wondered whether the pilot could have weaved as they approached the airfield in order to aid visual acquisition of other aircraft in the circuit. The lighting that had been selected on the PA28 was not known, however, members wished to highlight to all pilots the benefits of flying with the landing light selected 'on' to aid visual conspicuity. The PA28 pilot had had no prior knowledge that the other aircraft would be climbing in the downwind area (**CF1**) and the CWS onboard had not detected the other aircraft either (**CF2**). As the PA28 had approached the airfield, the low-wing on the PA28 had probably obscured the other aircraft (**CF4**), which had resulted in the PA28 pilot seeing the other aircraft late (**CF3**).

Turning to the unknown aircraft, the Board was disappointed that the pilot could not be traced, particularly given that it had taken off from Enstone. Members wondered whether a climb into the overhead within the visual circuit had been appropriate, taking into consideration the busy nature of the circuit that day and the likelihood of other aircraft joining through the overhead. However, without the other pilot's report, and therefore the full reasoning behind their actions, members agreed that they could not fully evaluate the actions of the unknown pilot.

Briefly turning to the actions of the AGO, they had not been required to integrate the aircraft, nor had they been required to visually keep track of the aircraft in the circuit, and members thought that there had been little more that the AGO could have done in the circumstances. However, members were concerned that the two organisations that operate from Enstone appeared to not communicate effectively and would urge both parties to ensure such events are fully planned and communicated. Members noted that fly-ins involving large numbers of aircraft operate successfully at many airfields, but a key factor in success would be in the planning and ensuring all users of the airfield are aware of the details, including arrival/departure procedures.

When assessing the risk, members were concerned that, with only the PA28 pilot's report, and no radar or GPS data on the other aircraft and therefore the exact separation between the two aircraft not known, they may not have had enough information to accurately assess the risk of collision. However, noting that both the AGO and the other Skyranger pilot's report (the pilot not involved in the Airprox) mentioned that they heard an Airprox being discussed on the RT, they felt that the PA28 pilot's account was enough to make an assessment. Given that the PA28 pilot described a situation whereby they had seen the other aircraft late, taken avoiding action, but still assessed the separation as only 10m, the Board decided that there had been a serious risk of collision (**CF5**), and that separation had been reduced to the bare minimum; Risk Category A.

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

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022225			
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	• Identification/Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
4	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
	• Outcome Events			
5	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[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 **not used** because the AGO was not required to integrate the aircraft.

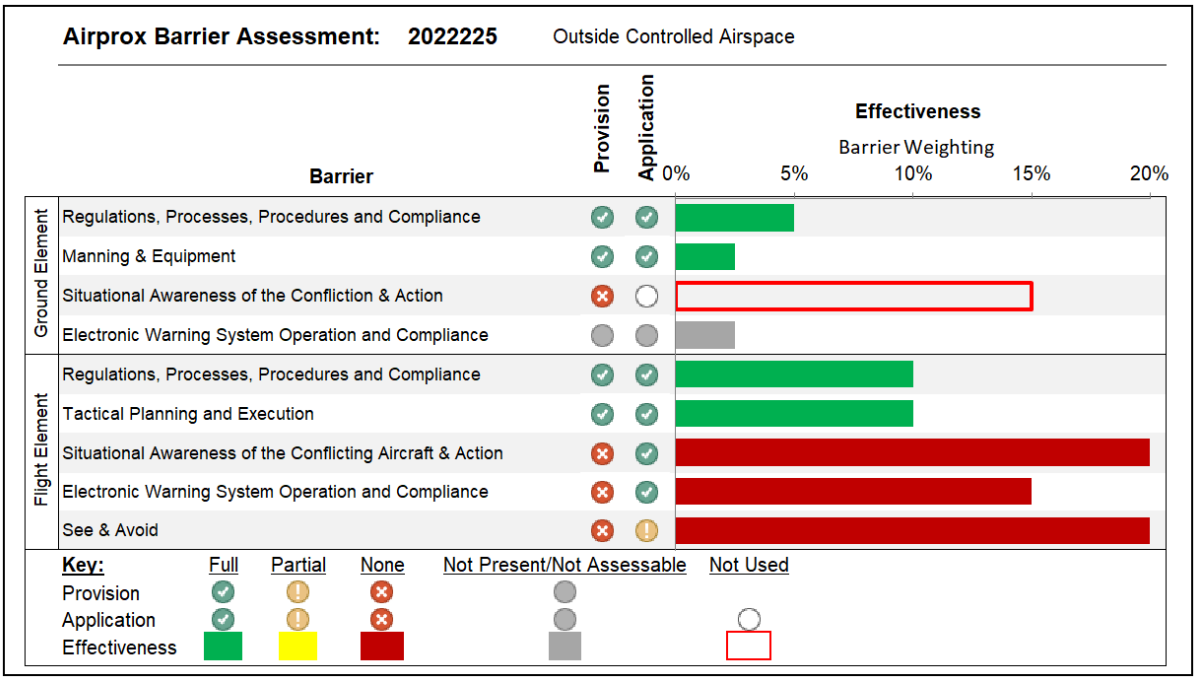
Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the PA28 pilot had had no prior situational awareness that the other aircraft was departing downwind.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the CWS on the PA28 had not detected the other aircraft.

See and Avoid were assessed as **ineffective** because although the PA28 pilot had managed to take avoiding action, the late sighting had meant that the separation had been reduced to the bare minimum.

[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: 2022225
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