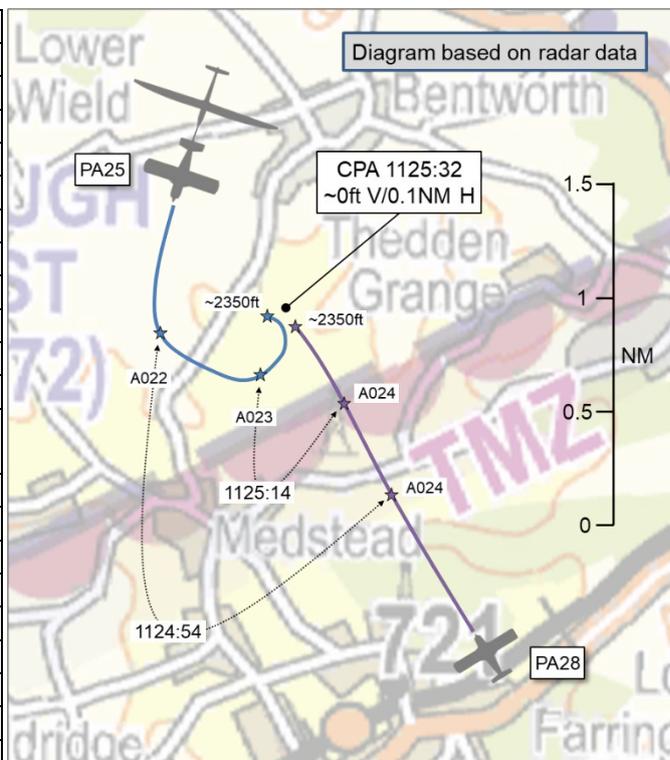


AIRPROX REPORT No 2024246

Date: 28 Sep 2024 Time: 1126Z Position: 5109N 00103W Location: 2.5NM SSW Lasham

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA25	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Lasham Gliders	Farnboro' LARS W
Altitude/FL	~2350ft	~2350ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Yellow	White
Lighting	Nav, strobe, beacon, landing	Landing, taxi, beacon
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1700ft	2300ft
Altimeter	QFE (1005hPa)	NR
Heading	100°	329°
Speed	70kt	90kt
ACAS/TAS	FLARM	Other
Alert	None	None
Separation at CPA		
Reported	0ft V/350m H	0m V/200m H
Recorded	~0ft V/0.1NM H	



THE PA25 PILOT reports that they were engaged in glider-towing operations from Lasham on a relatively busy day where a grid launch of around 30 gliders was in progress using three tow aircraft. The soaring conditions were better to the south of the airfield and they had been dropping most gliders there. They were well aware that traffic density would be high given the weather and, as a result, they were dual-watching Farnborough Radar LARS West as the secondary frequency for situational awareness with the glider-towing transponder code set. The primary frequency remained on Lasham Gliders to have ensured two-way communications between themselves and the duty instructor/launch-point operator and any gliders they were towing. They heard the Farnborough ATCO advising pilots throughout the morning of gliding activity at Lasham and the intensity of both radio frequencies indicated that the local area was busy and required a careful lookout.

On the occurrence flight, which was their 5th of the day, they were towing a Duo Discus glider. The tow was standard and, after initially heading SSW to around 1500ft QFE, they began a gentle turn to the left towards an area of good soaring conditions to drop the glider. As they were reducing the angle of bank, they had been looking-out as well as looking in the mirror at the glider. Simultaneously, as they scanned to the right, the glider pilot they were towing called out that there was traffic converging from the right. They immediately identified the traffic appearing from just in front of the right wingtip as a low-wing SEP and, based on the positions, decided that an avoiding action turn to the left was required to avoid a high risk of collision. During this turn, no avoiding action by the SEP pilot was observed. They had to exceed the standard angle of bank for towing a glider and they were concerned that the glider may be forced to release, however, the experienced glider pilot followed them around the turn and the conflict was eventually resolved, although significantly below safe margins.

During the avoiding action turn they did not have constant sight of the SEP aircraft but they heard the Farnborough ATCO provide Traffic Information to a pilot near Lasham about glider-towing aircraft in the

immediate vicinity and heard that the pilot reported visual. As they rolled out of the avoiding action turn, they became fully visual again with the GA aircraft which they identified as being in the livery of a flying school. It appeared to have remained on a constant heading throughout the event, though was now below them as they had been climbing throughout the avoiding action. The glider made a standard release at 2000ft QFE and [the pilot of the PA25] reported the Airprox to Farnborough Radar and Lasham Gliders by RT prior to conducting a safe landing. At no point did they receive an EC warning.

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

THE PA28 PILOT reports that they were at their planned altitude of 2400ft and had contacted Farnborough for a Basic Service. Approaching Lasham and Popham areas, Farnborough warned them that both were very active.

Closer to Lasham, Farnborough warned them of two contacts ahead, and they had both sets of aeroplanes and gliders in sight, and reported so to Farnborough. Farnborough made this transmission twice (if they recall correctly) seemingly not hearing [the PA28 pilot's] first confirmation of traffic in sight.

[The pilot of the PA28 commented that] they did not receive a warning of the traffic from their combined transponder/navigation device [that can receive ADS-B signals].

At that time, the aircraft to the east seemed to be still in the climb and they assessed that they would be long past before it would have reached the altitude of the PA28. The [combination] to the west, both glider and aeroplane, were at very similar altitude but both seemed to be diverging from [the PA28], the glider more so than the aeroplane. [The pilot of the PA28] judged that they would pass behind both. None of the aeroplane and glider pilots were heard on frequency with Farnborough.

They made no adjustment to course or altitude thinking that remaining steady would be the best course of action. Seconds later, they caught a movement out of the left window and turned to see the aeroplane much closer than they were expecting, and now tracking towards their position. They were surprised to see the aeroplane there as it had been tracking away but [the PA28] was moving at higher speed and the aeroplane had dropped behind [they believe] and out of view.

The aeroplane pilot came on the frequency with Farnborough and reported an Airprox and asked for tail numbers.

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

THE FARNBOROUGH LARS WEST CONTROLLER reports that LARS West and Zone were operating as a band-boxed function. Traffic loading was high to medium-high, but manageable. They were working a pilot flying [the PA28] under a Basic Service operating on LARS West. [The PA28] was squawking 0434. Prior to the aircraft reaching the vicinity of Lasham, they believed that they had warned the PA28 pilot about traffic on that route, as both Popham and Lasham were busy at the time of the reported Airprox.

They were monitoring [the PA28] as it tracked northwest-bound towards Lasham and they did pass Traffic Information to [the pilot of the PA28] on what they believed to have been a glider-tow aircraft and they reported visual. Moments later, at 1126, [the pilot of the PA25], who had not previously been on frequency, came on to the LARS West frequency to report an Airprox 3NM south of Lasham.

Factual Background

The weather at Odiham was recorded as follows:

METAR EGVO 281120Z AUTO 30007KT 9999 FEW027/// BKN034/// 12/05 Q1025

Analysis and Investigation

NATS SAFETY INVESTIGATIONS

The pilot [of the PA28] called onto the LARS West frequency at 1117:30, identified themselves as a student pilot and requested a Basic Service. They were assigned squawk 0434 on QNH 1025 and issued with a Basic Service by the Farnborough LARS West and Zone controller (LF LARS).

At 1125:24, the LF LARS controller issued Traffic Information to the pilot of [the PA28], advising them to “*keep a very good lookout, got multiple contacts in your vicinity, some of which are indicating very similar level to yourself. On the..., particularly..., i think there's one manoeuvring just off your left hand side, slightly ahead.*” The pilot acknowledged the call (Figure 1).



Figure 1

The Traffic Information was followed by the LF LARS controller informing the pilot at 1125:35 that the other aircraft was “*indicating a glider tow so keep a very good lookout*”, the pilot replied, “*I have two in sight*”.

The pilot of [the PA25 that was] squawking 0034 (that indicated they were undertaking glider-towing), reported onto the LARS West frequency at 1126:21 and reported an Airprox “*two miles to the southwest of Lasham*”. The LF LARS controller acknowledged the Airprox report and requested the pilot pass the details of the event. The pilot of [the PA25] replied “*Yeah, it's a PA25 out of Lasham to Lasham, we're just turning I believe it was [PA28 C/S], yeah it was late sighting. We'll file on our side, but, er thank you*”.

The LF LARS controller acknowledged the details before the pilot of [the PA25] reported they would switch back to Lasham frequency 131.030MHz at 1126:58.

Investigation: Information available to the investigation included: CA4114 from Farnborough LARS West and Zone controller, NATS4118 Initial Watch Management Investigation Report, radar and R/T recordings and CAP774 UK Flight Information Services

The Farnborough LARS West and Zone functions were being operated in a banded configuration by the LF LARS controller who reported the ‘*traffic loading was high to medium, but manageable*’. The NATS4118 described conditions on the day as the ‘*weather was particularly good after an extended period of poor weather, leading to large number of General Aviation aircraft flying in the Farnborough LARS West sector*’.

The UK AIP En-route Glider Launching Sites 5.5.1.3 stated:

‘Sites are listed primarily to identify hazards to other airspace users and listing does not imply any right for a glider or powered aircraft to use the sites’.

An 'Intense Glider Activity' area is identified in the vicinity of Lasham Aerodrome on VFR aeronautical charts (Figure 2).



Figure 2

[The PA28] was being flown by a student pilot operating under a Basic Service on the LARS West frequency.

CAP774 UK Flight Information Services Chapter 2.1 stated:

'A Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS 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'.

Chapter 2.5 and 2.6 also stated that:

'Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO. A pilot who considers that they require a regular flow of specific traffic information shall request a Traffic Service. However, where a controller/FISO has information that indicates that there is aerial activity in a particular location that may affect a flight, in so far as it is practical, they should provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller/FISO unless the situation has changed markedly, or the pilot requests an update'.

As [the pilot of the PA28] approached the vicinity of Lasham Aerodrome, the LF LARS controller issued the pilot with Traffic Information on multiple contacts in their vicinity. The pilot of [the PA25] subsequently reported an Airprox involving [the PA28].

Safety Investigations did not receive any reports from the pilots of the two aircraft involved to provide any additional detail related to their situational awareness or avoidance manoeuvres.

CAA ATSI

ATSI has analysed the reports for this occurrence and has the following comments: Traffic Information was reported as having been passed to the pilot of the PA28 by Farnborough twice and the pilot reported being visual. ATSI has nothing to add to the NATS investigation report.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft could be positively identified from Mode S data (Figure 3).

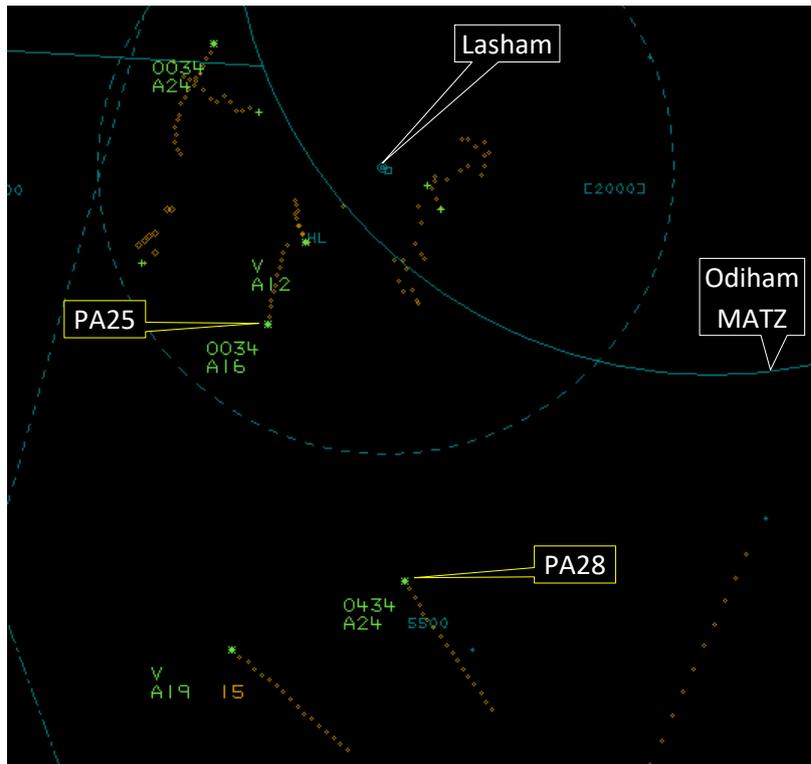


Figure 3 – 1124:06. The separation between the PA25 and PA38 was 3NM

CPA was assessed to have occurred between the radar sweeps at 1125:30 and 1125:34 (Figures 4 and 5). The vertical separation at CPA has been assessed as approximately 0ft as the PA25 had climbed, and the PA28 had descended, between sequential sweeps.

The diagram was constructed and the separation at CPA determined from the radar data.



Figure 4 – Aircraft positions at 1125:30



Figure 5 – Aircraft positions at 1125:34

The PA25 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 If the incident geometry is considered as converging then the PA28 pilot was required to give way to the PA25.²

Comments

AOPA

This Airprox provides a reminder that, under a Basic Service, a pilot should not expect to receive Traffic Information (CAP774 para 2.5), it is therefore recommended to obtain a Traffic Service which, if denied, should be notified to the CAA on the form FCS1522.

In this case, the controller had the time to provide Traffic Information in accordance with CAP774 para 2.8. which assisted the pilot to look for the conflicting traffic.

BGA

This incident occurred in an area of uncontrolled airspace that has always been busy with a varied mix of traffic but, after the expansion of Farnborough's controlled airspace westward in February 2020, appears to have become even more so, with aircraft being funnelled between the new controlled airspace, the Southampton/Solent CTA/CTR and the Boscombe Down complex. Over 220 gliders are based at Lasham aerodrome, which lies just inside the Odiham MATZ, 2.5NM from the location of this incident.

Glider/tug combinations have limited manoeuvrability and are best given a wide berth.

Summary

An Airprox was reported when a PA25 and a PA28 flew into proximity 2.5NM south-southwest of Lasham at 1126Z on Saturday 28th September 2024. The PA25 pilot was operating under VFR in VMC, listening-out on the Lasham gliding frequency. The PA28 pilot was operating under VFR in VMC, in receipt of a Basic Service from Farnborough LARS West.

¹ (UK) SERA.3205 Proximity.

² (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 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 considered the actions of the pilot of the PA25, and a member with particular experience of gliding operations explained that the tug-and-glider combination had limited manoeuvring capability. The member also pointed out that the responsibility for lookout had lain solely with the pilot of the PA25. Nevertheless, the glider in question had been a two-seat model and, as such, one of the pilots in the glider had been able to supplement the lookout whilst the other glider pilot had attended to maintaining a good position behind the tug. Members noted that it had been the case that one of the pilots in the glider had sighted the PA28 approaching from their right. Members next noted that the EC equipment fitted to the PA25 would not have been expected to have detected the presence of the PA28 (**CF3**) and agreed that the PA25 pilot had not had situational awareness of the PA28 (**CF2**) until it had been visually acquired, perhaps prompted by the alert from one of the pilots in the glider being towed. Some members wondered whether the pilot of the PA25 had been partially distracted by glancing into the mirror to monitor the position of the glider to the detriment of their lookout. Nevertheless, members noted that decisive avoiding action had been taken and that the pilot of the PA25 had considered in that moment that a steep left-hand turn had been the safest course of action.

The timing of the encounter was pondered and, given that the PA25 had been in a gentle left-hand turn through south-east, some members calculated that the PA28 had passed through the PA25 pilot's 12 o'clock position when there had been 0.5NM separation between the aircraft. Consequently, it was suggested that there may have been an opportunity to have reduced their angle of bank which may have enabled the combination to have passed behind the PA28. Notwithstanding that postulation, members agreed that the PA28 had been visually acquired late (**CF4**).

Members next considered the actions of the pilot of the PA28 and noted that they had been in receipt of a Basic Service from the Farnborough LARS West controller. As such, members agreed that they would not have expected to have been passed any information on traffic along their route. Nevertheless, members noted that the pilot of the PA28 had been cautioned to; "*keep a very good lookout*", that "*multiple contacts*" were in their vicinity at their level, and that there had been "*one manoeuvring just off your left hand side, slightly ahead*". Further, members noted that the Traffic Information had been updated to provide specific information about "*a glider tow*" and, again, a caution had been passed to the PA28 pilot to "*keep a very good lookout*". Members commended the Farnborough LARS West controller for passing information well beyond that which would have been expected by the pilot of the PA28 under the terms of a Basic Service.

Members noted that the EC equipment fitted to the PA28 would not have been expected to have detected the presence of the PA25, nor the glider in tow (**CF3**). However, members noted that the pilot of the PA28 had visually acquired the PA25 but surmised from their narrative report that they had assumed that the PA25 would have maintained its gentle turn and would have passed behind them. Consequently, members believed that the pilot of the PA28 had not been aware that the PA25 had actually turned towards their position until they had re-acquired it immediately to their left. Members were keen to emphasise the imperative of maintaining a thorough lookout and to constantly update the mental model of the traffic situation. Members agreed that the PA25 had been visually re-acquired late (**CF4**) and noted that the pilot of the PA28 had assessed that the safest course of action had been to maintain their course and altitude.

Turning their attention to the actions of the Farnborough LARS West controller, members re-iterated their thoughts on the provision of a service in excess of the requirements of the Basic Service. In consideration of the matter of electronic warning systems in use at the Farnborough position, members agreed that the transponder codes selected by each pilot had fallen outside the select frame of the STCA (**CF1**). Nevertheless, members were keen to point out that the fitment of a transponder to the PA25 had enabled the Farnborough LARS West controller to identify the operation of the PA25 even though the pilot of the PA25 had not made contact on the Farnborough LARS West frequency. Members

agreed that there had been little else the Farnborough LARS West controller could have done to have assisted matters further.

Members concluded the discussion and summarised their thoughts. It was agreed that the pilot of the PA25 had not had situational awareness of the presence of the PA28 until it had been visually acquired moments before CPA. The pilot of the PA28 had situational awareness of the presence of the PA25, and had sighted it at distance, but had not been aware that it had turned towards them and they had not re-acquired it until it had been in close proximity. Members agreed that it had been the avoiding action taken by the pilot of the PA25 that had increased separation between the aircraft at the last minute. A vote was conducted. Some members proffered that the avoiding action that had been taken had averted the risk of collision. However, an alternate view, in which the separation had reduced to such an extent that there had been a risk of collision, prevailed (**CF5**). The Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2024246				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Electronic Warning System Operation and Compliance				
1	Technical	• Conflict Alert System Failure	Conflict Alert System did not function as expected	The Conflict Alert system did not function or was not utilised in this situation
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
2	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				
3	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				
4	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
• 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: B.

Safety Barrier Assessment³

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

Ground Elements:

Electronic Warning System Operation and Compliance were assessed as **not used** because the transponder code assigned to the pilot of the PA28 was outside the select frame of the Farnborough LARS West STCA.

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because, having been cautioned by the Farnborough LARS West controller of the intensity of gliding operations along their intended route, the pilot of the PA28 encountered the PA25 and glider combination.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the pilot of the PA25 had not had situational awareness of the presence of the PA28.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC equipment fitted to each aircraft would not have been expected to have provided an alert to the presence of the other aircraft.

See and Avoid were assessed as **partially effective** because the pilot of the PA25 had visually acquired the PA28 late.

Airprox Barrier Assessment: 2024246		Outside Controlled Airspace					
Barrier	Provision	Application	Effectiveness				
			Barrier Weighting				
			0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓	[Green bar to 5%]			
	Manning & Equipment	✓	✓	[Green bar to 2.5%]			
	Situational Awareness of the Conflicting Aircraft & Action	✓	✓	[Green bar to 15%]			
	Electronic Warning System Operation and Compliance	✓	○	[Red box]			
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓	[Green bar to 10%]			
	Tactical Planning and Execution	✓	⚠	[Yellow bar to 10%]			
	Situational Awareness of the Conflicting Aircraft & Action	✗	✓	[Red bar to 20%]			
	Electronic Warning System Operation and Compliance	✗	✓	[Red bar to 15%]			
	See & Avoid	⚠	⚠	[Yellow bar to 20%]			
Key:							
	Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	●			
Application	✓	⚠	✗	●	○		
Effectiveness	[Green]	[Yellow]	[Red]	[Grey]	[Red box]		