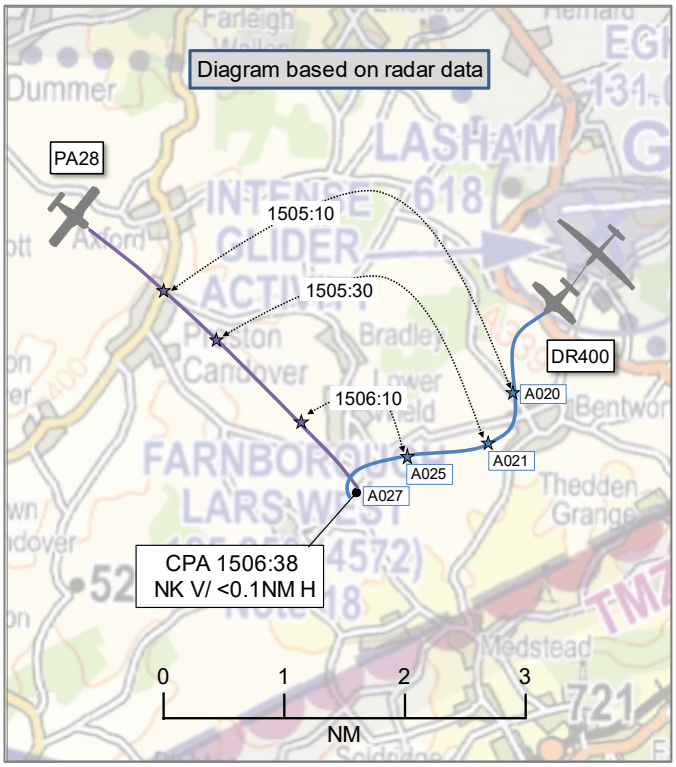
AIRPROX REPORT No 2024045

Date: 30 Mar 2024 Time: 1507Z Position: 5509N 00106W Location: 2NM SW of Lasham.

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DR400	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Listening Out
Provider	Lasham Traffic	Farnborough LARS[1]
Altitude/FL	2700ft	NK
Transponder	A, C, S	A, S[2]
Reported		
Colours	Black and yellow	White
Lighting	Landing, nav & strobes	Beacon and strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2618ft ASL	2500ft ASL
Altimeter	QFE (996hPa)	QNH
Heading	150°	120°
Speed	65kt	95kt
ACAS/TAS	PowerFLARM	Not fitted
Alert	None	None
Separation at CPA		
Reported	0ft V/0.1NM H	200ft V/500ft H
Recorded	NK V/<0.1NM H	



THE DR400 PILOT reports that they were aerotowing from Lasham and had departed RW23 with a glider in tow, with the departure time recorded as 1502 squawking 0034. They climbed out and maintained runway heading, altered heading to the west at approximately 700ft, then commenced a gentle turn to the left. When climbing through 2000ft and heading approximately 155° another aircraft [was] spotted in their 7 o'clock which overtook the aircraft combination down the left side. They levelled the wings to maintain horizontal separation, the other aircraft appeared to briefly bank to the left. They estimated the minimum separation at 200m. The other aircraft continued on a southeasterly track.

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

THE PA28 PILOT reports they were the right-hand seat instructor on a student's second cross country flight. They knew there was gliding at Lasham and they could see gliders over the aerodrome. They advised the student to keep a good lookout to the northeast and east (towards Lasham). When they were approximately 4NM southwest of Lasham they saw a [DR400] approximately 200ft below them, behind the starboard wing approximately 200ft laterally on a parallel course. They took control and turned left away from the [DR400] to open the separation whilst maintaining good visual references. They passed astern of the [DR400] and continued en-route.

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

Factual Background

[1] The pilot reported that they were listening to Farnborough LARS, but was squawking the Solent FMC.
[2] The pilot reported that Mode C was selected, but no altitude reporting was seen on the radar replay.

The weather at Odiham was recorded as follows:

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METAR EGVO 301450Z AUTO 14007KT 9999 NCD 14/04 Q0994
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Analysis and Investigation

UKAB Secretariat

An analysis of the radar replay and ADS-B tracks positively identified the DR400 with Mode S in the climb-out from Lasham. The PA28 was also visible on radar but with no altitude read-out (Figure 1)

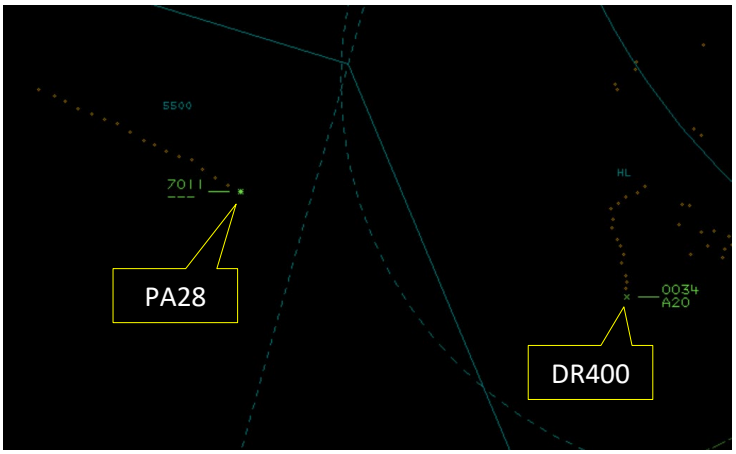

Figure 1 – Time 1505:10 DR400 departing Lasham, PA28 tracking ESE.

The DR400 manoeuvred in the climb until such time as the aircraft turned left coincident with the track of the PA28 (Figure 2).

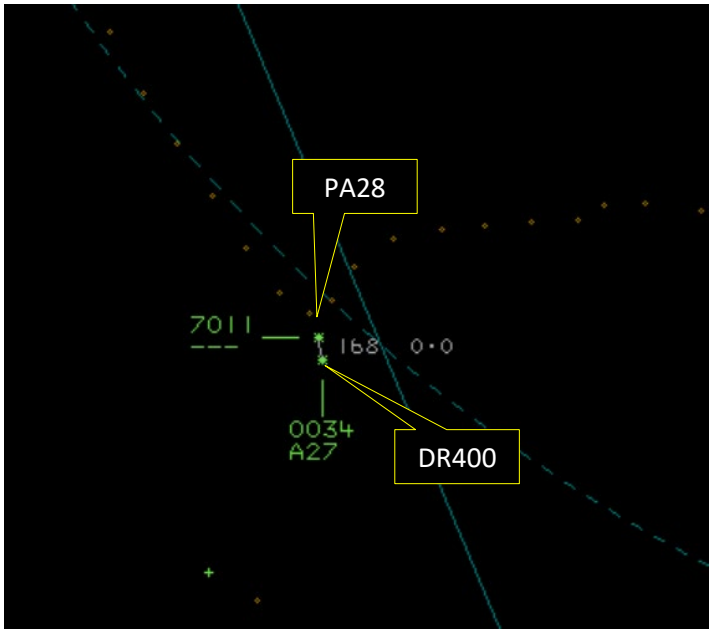

Figure 2 – Time 1506:38 CPA separation <0.1NM horizontal and unknown vertically.

The DR400 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.[3] If the incident geometry is considered as converging then the PA28 pilot was required to give way to the DR400 while they were towing a glider.[4] If the incident geometry is considered as overtaking then the DR400 pilot had

[3] (UK) SERA.3205 Proximity.
[4] (UK) SERA.3210 Right-of-way (c)(2) Converging.

right of way and the PA28 pilot was required to keep out of the way of the other aircraft by altering course to the right.[5]

Comments.

AOPA

To improve situational awareness, and as a teaching point, it may have been prudent [for the PA28 pilot] to have agreed a service with Farnborough, or given Lasham a radio call; likewise, the glider tug [pilot] combination could have used Farnborough as well. If an Air Traffic Service request is refused then the CAA needs to be informed using the form FCS1522.[6]

BGA

Over 220 gliders are based at Lasham airfield, which is one of the busiest gliding sites in the world. Class D controlled airspace created immediately to the east in 2020 has created a choke point here, funnelling both gliders and traffic transiting outside controlled airspace above 2000ft AMSL into this area. An increased frequency of Airproxes near Lasham is the likely result.

The PA28 pilot is to be commended for their awareness of gliding activity at Lasham. The Lasham VHF channel is shown on CAA VFR charts, and is typically monitored by Lasham-based gliders and departing aerotow combinations. If transiting nearby, a brief broadcast call on this channel using "Unattended Aerodrome" phraseology (CAP 413 §4.162 et seq) could help avoid conflicts and increase everyone's situational awareness.

The DR400 was equipped with a TAS that would have been expected to detect the PA28 transponder and issue an alert. It would be useful to understand why this barrier did not function.

Summary

An Airprox was reported when a DR400 and a PA28 flew into proximity 2NM southwest of Lasham at 1507Z on Saturday 30th March 2024. Both pilots were operating under VFR in VMC; neither pilot was in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and GPS data. 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 discussed the actions of the DR400 pilot and expressed concern that the DR400 tug pilot had not seen the PA28 when it had been approaching the tug and glider combination from the right. Board members wondered to what extent the glider pilot would have had a role in lookout during the climb-out. A member familiar with glider operations emphasised that as a result of tug upsets in recent years that have endangered tug pilots, glider pilots are now trained to mitigate the risk of an upset by staying focused on the tug throughout the tow. They noted that the DR400 pilot had sighted the PA28 belatedly (**CF5**) and had maintained a steady heading to increase separation and that, until the sighting, the DR400 pilot's situational awareness of the PA28 had been non-existent (**CF3**) and exacerbated by the lack of information forthcoming from the DR400 pilot's TAS which had not alerted them to the PA28, as it would have been expected to (**CF4**).

Turning their attention to the actions of the PA28 pilot, members were likewise concerned that they had effectively not seen the DR400 (**CF6**) until at or around CPA. The Board acknowledged that this had been a busy sector for the student, and that the instructor had briefed the position of the glider site and had been mindful of the glider activity. However, members felt that the instructor could have

[5] (UK) SERA.3210 Right-of-way (c)(3) Overtaking.
[6] FCS 1522 - UK Airspace Access or Refusal of ATS Report (caa.co.uk)

demonstrated better use of ATS by speaking with Farnborough instead of 'listening out' on the Farnborough frequency (**CF1**) and/or by calling Lasham to check for local glider traffic, thereby potentially improving their overall situational awareness. The Board agreed that, as it was, the PA28 pilot had only had generic situational awareness of the likelihood of encountering glider tug traffic due to their proximity to the glider site (**CF3**). The Board mentioned that suitable electronic conspicuity (EC) equipment in the PA28 would also have improved the situational awareness of the PA28 pilot, and that had the Mode C of the PA28's transponder been enabled (**CF2**) that the PA28 would be more likely to be recognised by compatible EC systems.

In assessing the risk, the Board agreed that safety had been degraded but that the late sighting of the PA28 by the DR400 pilot had been sufficient for them to have made timely and effective avoiding action to have removed any risk of collision with the PA28; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024045			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	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
2	Human Factors	• Transponder Selection and Usage	An event involving the selection and usage of transponders	
	• 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	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
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

Degree of Risk: C.

Safety Barrier Assessment[7]

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot had only been monitoring the Farnborough frequency and was not in receipt of an ATS, and the PA28's transponder had not been transponding Mode C altitude.

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

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither the PA28 nor DR400 pilots had been situationally aware of the other.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the DR400 TAS had been unable to detect the transponder of the PA28.

See and Avoid were assessed as **partially effective** because the DR400 pilot had sighted the PA28 late and the PA28 pilot had had an effective non sighting of the DR400 after passing down the left-hand side of the tug and glider combination.