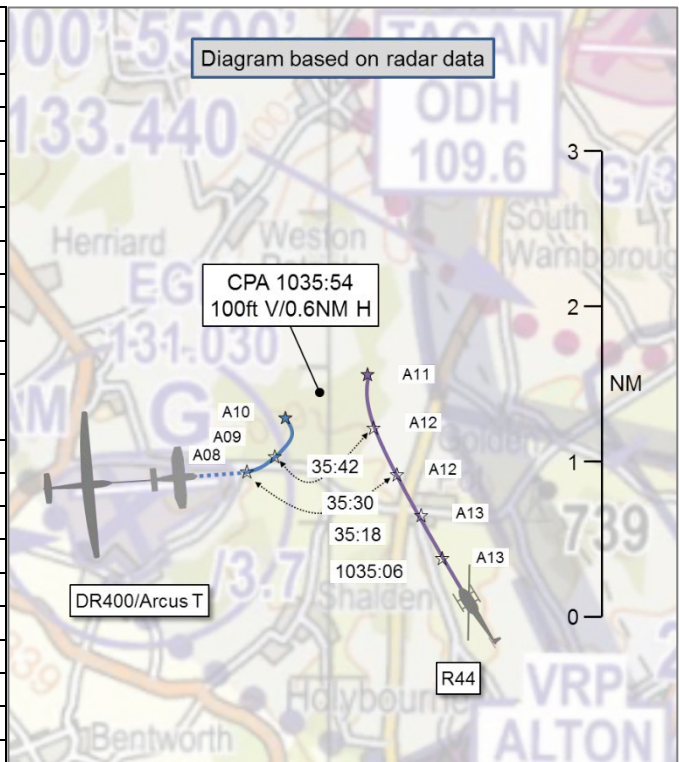


**AIRPROX REPORT No 2020051**

Date: 08 Jun 2020 Time: 1036Z Position: 5112N 00100W Location: 1NM NE Lasham

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	DR400/Arcus T	R44
Operator	Civ FW	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Lasham	Farnborough
Altitude/FL	1000ft	1100ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Black, yellow	White, Hi vis blades
Lighting	NK	HISL
Conditions	VMC	VMC
Visibility	70km	>10km
Altitude/FL	200ft	1060ft
Altimeter	QFE (995hPa)	NK
Heading	080°	347°
Speed	75kt	99kt
ACAS/TAS	FLARM	TAS
Alert	None	None
Separation		
Reported	100ft V/600m H	200ft V/0.7NM H
Recorded	100ft V/0.6NM (~1100m) H	



**THE DR400 TUG PILOT** reports departing Lasham from RW09 grass with a 90° crosswind, towing a heavy two seat modern sailplane resulting in reduced climb performance and manoeuvrability. A Lasham staff instructor also co-ordinated the launch on the gliding communication frequency of 131.030MHz. The DR400 pilot allowed the tug/glider combination to accelerate to climbing speed with the intention, after a slight left hand turn to 080° for about half a mile, of climbing out on a northerly heading. This is a typical tug departure at Lasham with a moderate northerly wind component. Once he had line of sight above the trees at the eastern end of RW09, a R44 helicopter appeared in his field of view, ahead and slightly to the right. The helicopter appeared to be some 500-700m ahead and slightly above on what looked like a converging path. The angle of bank of the left turn was increased to reduce the possibility of conflict with the R44 helicopter. After he passed through a heading 045° he lost sight of the helicopter, due to the nose high climb attitude and high right wing due to the aircraft being in a left turn. The left turn was continued to approximately heading 330° and the glider released at 1000ft Lasham QFE. He continued the left turn to return to Lasham but did not see the R44 again.

The pilot assessed the risk of collision as ‘Medium’.

**THE R44 PILOT** reports routing from Midhurst to Basingstoke when he saw a tug/glider combination in the left 10 o’clock at a range of about 1.2km, about 200ft higher. He was not sure of their intentions or manoeuvrability so descended slightly and turned on to a more northerly heading. He stated that in his opinion there was no safety issue or Airprox, he simply increased an already satisfactory separation as a matter of course.

The pilot assessed the risk of collision as ‘None’.

**THE FARNBOROUGH CONTROLLER** reports that he was working on Approach/Zone/[LARS] West, relatively busy with two pipeline aircraft. He noticed [R44 C/S] routing close to Lasham with no potential

glider contacts showing at the time. On completing his scan, he noticed that the [R44] contact was garbling with a Lasham tug aircraft. He moved the labels, observed that there was no conflict and so did not pass Traffic Information.

## Factual Background

The weather at Farnborough was recorded as follows:

METAR EGLF 081050Z 04008KT 330V090 9999 BKN030 15/07 Q1019=

## Analysis and Investigation

### CAA ATSI

The R44 pilot called the Farnborough controller at 10:30.40 and advised that they were 5NM SSE of Alton and looking to route Alton, Basingstoke, Hook, remaining clear of the [Farnborough] ATZ. [Odiham] MATZ penetration was approved with instructions to remain clear of the ATZ. The QNH 1019hPa was passed and a Basic Service was agreed. There was no further communication between the pilot and the controller prior to the Airprox occurring at 10:35.50 and the pilot left the Farnborough frequency to change to Blackbushe at 10:42.50 having made no mention of an Airprox.

At 10:35.34 the DR400 first appeared on the Area Radar replay, 0.9NM west of the R44, indicating an altitude of 800ft (Figure 1).

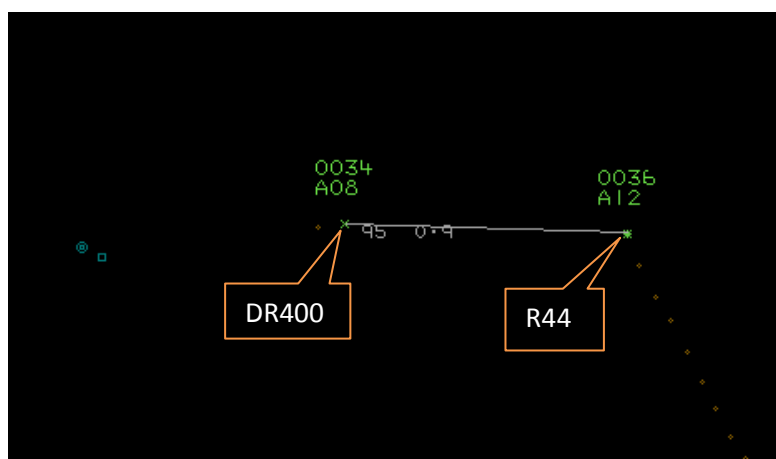


Figure 1 - 10:35:34

CPA occurred at 10:35.50<sup>1</sup>, with the aircraft separated by 0.6NM laterally and 300ft vertically (Figure 2).

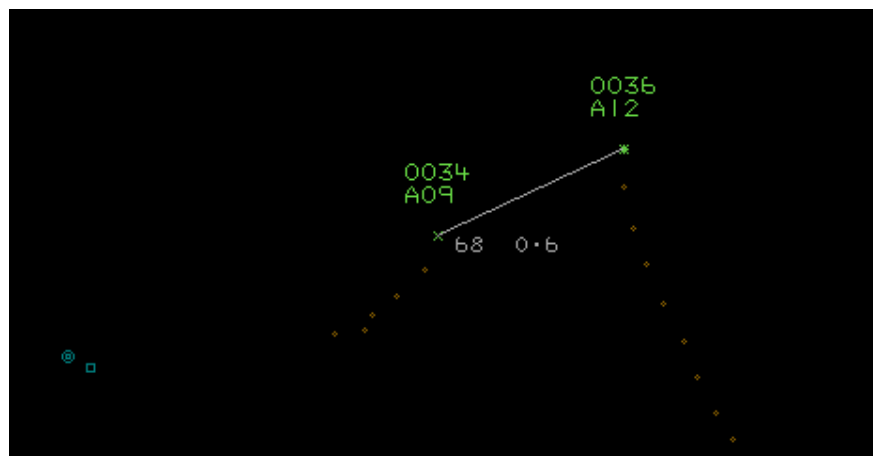


Figure 2 -10:35:50

<sup>1</sup> UKAB Secretariat estimated that CPA occurred at 10:35:54, as depicted in the diagram on page 1.

The pilot of the DR400 was not in receipt of an ATC service at the time of the Airprox. The pilot of the R44 was in receipt of a Basic Service from Farnborough LARS.

CAP 493 Section 1 Chapter 12:

#### 2A. Definition

*2A.1 Basic Service is a type of UK FIS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.*

*2E.4 If a controller notices that a definite risk of collision exists, a warning shall be issued to the pilot. ((EU) 923/2012 SERA.9001 and SERA.9005(b)(2))*

**Note:** *Information relating to collision hazards includes only known activities that constitute risks to the aircraft concerned. The availability of such information to air traffic services may sometimes be incomplete (e.g. limitations in radar or radio coverage, optional radio contact by pilots, limitations in the accuracy of reported information by pilots, or unconfirmed level of information) and, therefore, air traffic services cannot assume responsibility for its issuance at all times or for its accuracy. (GM1 SERA.9005(b)(2))*

There was a total period of 16sec from when the DR400 combination first appeared on the radar replay and the Airprox occurring. This was insufficient time to reasonably expect a controller to observe a hazard and issue a warning.

#### UKAB Secretariat

The DR400/Arcus T and R44 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>2</sup>. If the incident geometry is considered as converging then the R44 pilot was required to give way to the DR400/Arcus T<sup>3</sup>. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation<sup>4</sup>.

#### Comments

##### Lasham Duty Instructor

The Lasham Duty Instructor (DI) reports that he was responsible for the Lasham operation on behalf of the airfield operator at the time of this occurrence. Lasham was using RW09 and at the time of the occurrence a heavy water-ballasted sailplane was being launched as one of the first movements of the day. The glider was launched to test the weather conditions to report back to the DI to ensure safety standards of cloud-base and lift conditions were met to launch another 35 gliders in quick succession that were operating from Lasham. At the time the DI was also the duty radio operator on the Lasham Gliders Frequency (131.030MHz). At no time was the helicopter heard on RT, either to pilots or the DI on the Lasham Frequency and he did not sight the helicopter visually from his position near the threshold of RW09. On the climb-out the tug pilot reported the Airprox to the DI by RTF and the DI reported it via landline later to Farnborough Radar who are the local ATSU. In recent years, Lasham has seen an increased amount of aircraft flying, both with and without an ATC Service, within or in very close proximity to the circuit pattern and also below the notified maximum altitude for winch-launches. A frequency is available to contact Lasham Gliding, but very few pilots take advantage of this to aid their situational awareness. Lasham is one of the busiest GA airfields in the south of the UK, with 50,000 movements annually, including commercial airliners. At some points, there can be over 100 movements an hour at Lasham. Continued education efforts have been stepped up by Lasham from 2019 and the wider BGA to encourage awareness of glider sites

<sup>2</sup> SERA.3205 Proximity.

<sup>3</sup> SERA.3210 Right-of-way (c)(2) Converging.

<sup>4</sup> SERA.3225 Operation on and in the Vicinity of an Aerodrome.

to prevent these events which could have catastrophic consequences. As a result a number of operators have been engaging with Lasham to ensure flights at low level in our vicinity are pre-notified and we would welcome further engagement. The area that this Airprox occurred in is within a known new potential choke point of only a few miles between Lasham and the edge of the new Farnborough Controlled Airspace. Though expense has gone into equipping gliders and tugs with the latest PowerFLARM conspicuity to aid general awareness, the fact this happened at low level in the departure path of Lasham with limited room to manoeuvre is concerning at a period of potentially high workload for a pilot conducting a take-off.

## **BGA**

BGA concurs with the Lasham DI's comments.

## **Summary**

An Airprox was reported when a DR400/Arcus T tug/glider combination and an R44 flew into proximity near Lasham at 1036Z on Monday 8<sup>th</sup> June 2020. Both pilots were operating under VFR in VMC, the DR400 pilot listening out on a gliding communication frequency and the R44 pilot in receipt of a Basic Service from Farnborough.

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

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers 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.

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments. Although not all Board members were present for the entirety of the meeting and, as a result, the usual wide-ranging discussions involving all Board members were more limited, sufficient engagement was achieved to enable a formal assessment to be agreed along with the following associated comments.

Members first discussed the Farnborough controller's actions and agreed that he could not have provided earlier Traffic Information, even if he had perceived a risk of collision, because the DR400 was initially not at an altitude that allowed a secondary radar response. Once his scan returned to the area around Lasham he saw the DR400 and R44 labels garbling, moved the labels and assessed that there was no risk of conflict. Although it would not have made a difference in this Airprox, members reiterated that provision of Traffic Information was far more likely under a Traffic Service and that, generally, pilots should request a Traffic Service if possible. Some members wondered whether Lasham notified Farnborough on commencement of gliding operations and if so, whether Farnborough controllers could issue generic Traffic Information on first contact, even for traffic under a Basic Service.

Turning to the pilots, the Board agreed that the DR400 pilot was geographically constrained by the task being conducted from Lasham airfield. He was not aware of the R44's track (**CF1**) and so his first perception of the R44 was when he saw it at a range of 5-700m and on a converging course. Additionally, his TAS (FLARM) was not compatible with the R44 EC so no warning was generated (**CF2**). Gliding members commented that the large weight of the DR400/Arcus T combination would have resulted in a reduced performance for the DR400 and severely reduced the DR400 pilot's manoeuvring options. Consequently, the Board surmised that the DR400 pilot would have been concerned by the proximity of the R44 (**CF4**). Similarly, the R44 pilot had no SA on the imminent glider tow from Lasham (**CF1**) but the Board could not ascertain why the R44 TAS did not alert (**CF3**). Members discussed the R44 pilot's choice of routing and wondered why he had elected to transit across the centreline of the departure lane at an active airfield, at a range of less than 1NM and at a low level. Members agreed that a more considerate option would have been to climb to an appropriate altitude to avoid the departure lane. Members also felt that having decided to transit in close proximity to Lasham

he could have contacted the airfield on the promulgated ICF in order for each party to gain SA on the other. In the event, the R44 pilot saw the DR400/Arcus T combination and took action to increase separation; the Board agreed that normal safety standards and parameters pertained.

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

### Contributory Factors:

	2020051		
CF	Factor	Description	Amplification
	<b>Flight Elements</b>		
	<b>• Situational Awareness of the Conflicting Aircraft and Action</b>		
1	Contextual	• Situational Awareness and Sensory Events	Pilot had no, late or only generic, Situational Awareness
	<b>• Electronic Warning System Operation and Compliance</b>		
2	Technical	• ACAS/TCAS System Failure	Incompatible CWS equipment
3	Technical	• ACAS/TCAS System Failure	CWS did not alert as expected
	<b>• See and Avoid</b>		
4	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: E.

Recommendation: Nil.

### Safety Barrier Assessment<sup>5</sup>

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 **partially effective** because the R44 pilot had only generic SA on gliding activity at Lasham and the DR400 pilot was not aware of the proximity of the R44 until visually sighted.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because each aircraft was equipped with a TAS that was incompatible with the other.

<sup>5</sup> 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: 2020051** 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	✓	✓			
<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	■	■	■	■		□