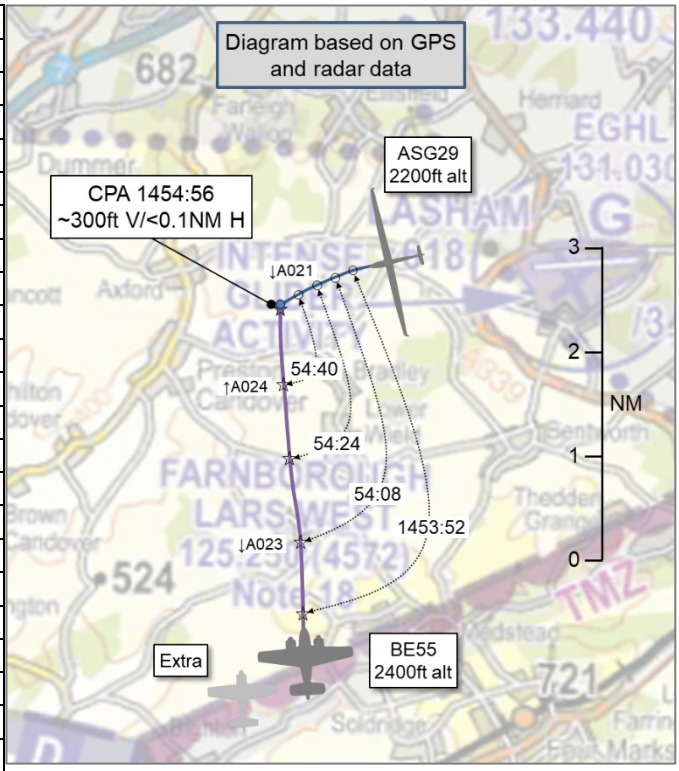
AIRPROX REPORT No 2021181

Date: 16 Sep 2021 Time: 1455Z Position: 5111N 00107W Location: 3NM W of Lasham

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASG29	BE55
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	'Lasham Gliders'	F'borough LARS
Altitude/FL	2100ft	2400ft
Transponder	Off	A, C, S
Reported		
Colours	White	Red, white
Lighting	None	Strobe, nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2000ft	2000ft
Altimeter	QNH (1026hPa)	QNH (NK hPa)
Heading	250°	350°
Speed	60kt	170kt
ACAS/TAS	FLARM	Sentry
Alert	None	None
Separation at CPA		
Reported	100ft V/200m H	Not Seen
Recorded	~300ft V/<0.1NM H[1]	



THE ASG29 PILOT reports that they had taken-off on a cross country flight, but poor soaring conditions (overcast) meant this became a local soaring flight. They left a group of gliders circling in a weak thermal just NW of Lasham to seek 'their own' thermal. They headed to a cloud near Preston Candover and, en-route to that cloud and flying straight at 2000ft, a beige twin (possibly a Beechcraft or a King Air) appeared in their 9/10 o'clock, close and slightly above. It had an aerobatic aircraft (possibly an Extra) in close formation on its port wing, slightly higher. The ASG29 pilot instinctively initiated a right descending turn but quickly stopped this as it became clear the other aircraft would pass ahead of them and slightly above and they didn't want to lose visual contact. They believe the twin may have taken similar action, pulling up and turning slightly to the left. They estimate that they were tracking 250° and that the other aircraft were tracking 350°-010°. They opined that their lookout in that area was clearly not sharp enough but equally it would appear neither was that of the other pilots. The ASG29 was equipped with a transponder and [an electronic conspicuity device] but only [the electronic conspicuity device] was active at the time. Conditions were light SW wind, overcast at 5000ft (estimated), cumulus base 3000-3500ft. The visibility was reasonable – greater than 10km although gloomy under the overcast. They were not in receipt of an air traffic service. There is no obligation on traffic to call on the Lasham frequency, but they were monitoring it as there was an A320 inbound to Lasham at that time. They did not hear any traffic announce itself. That area has seen higher intensity traffic since the Southampton and more recent Farnborough airspace changes. Within 10min they saw three other light aircraft transiting south-to-north through that area at similar altitudes.

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

THE BE55 PILOT reports that they had made a few flights on that day along a similar route and always go out of their way to give plenty of space between Lasham and their route. On this occasion, they were flying in company with an Extra EA300 and both pilots had independently agreed a Basic Service from

[1] Separation measured by comparison of the GPS position of the ASG29 and radar position of the BE55.

Farnborough LARS but do not recall receiving any Traffic Information from the controller. They always carry [an electronic conspicuity device] linked to their navigation software but they did not receive any alert of aircraft in the vicinity; however, their equipment is based on ADS-B and does not detect [devices using alternative protocols].

THE FARNBOROUGH LARS WEST CONTROLLER reports that they first became aware of an Airprox incident that was reported to have occurred on 16th September 2021 via an email from the UK Airprox Board. They were the LARS West and Farnborough Zone controller on duty at the time of the incident but have no recollection of the event as nothing was observed or reported on frequency at the time.

Factual Background

The weather at Odiham was recorded as follows:

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METAR EGVO 161450Z 22006KT 9999 FEW032 SCT048 20/13 Q1017 NOSIG RMK BLU BLU=
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Analysis and Investigation

NATS Farnborough

Traffic levels on LARS West were high-to-medium. The LARS West Sector was operating independently to Approach and Zone frequencies. The Airprox was reported as having occurred 2NM WSW of Lasham Airfield.

[The BE55 pilot] came on frequency at **1448:42**, requesting a Basic Service and MATZ penetration to remain outside the Odiham ATZ. They were given a Basic Service and a squawk of 0432.

1450:05 (RAD) "*[BE55 c/s] squawk 0432 Basic Service QNH1017*".

This was read back correctly by [the BE55 pilot].

At **1450:18** [An Extra pilot] called for a Basic Service and Odiham transit and confirmed that they were flying together/in formation.

1450:29 ([Extra c/s]) "*[Extra c/s] an Extra 300 just departed* [airfield]. *I'm in company with* [BE55 c/s] *inbound to* [airfield]. *Request Basic Service and transit the Odiham MATZ remaining clear*".

1450:40 (RAD) "*[Extra c/s] Odiham MATZ transit is approved, remaining outside of the Odiham ATZ, squawk 0433 Basic Service QNH1017*".

This was read back correctly.

At **1454:54** the returns of [the BE55] (squawk 0432) and [the Extra] (squawk 0433) merged with a primary only return that was tracking westbound from Lasham. This occurred approximately 3 miles west of Lasham. After the merge, the primary only contact can be seen to take a left turn and track south. [The BE55] and [the Extra] continued northbound on the same track. There was no RT call made about their proximity.

The following screenshots are in time order and depict the event:

Figure 1 – 1453:59

Figure 2 – 1454:35

Figure 3 – 1454:49

Figure 4 – 1454:54

Figure 5 – 1455:05

For this investigation the radar tapes have been reviewed along with the R/T and the controller's reports. CAP744 was also reviewed for UK FIS.
This incident occurred because [the BE55] and [the Extra], who were flying in company with one another, appeared to overfly or under-fly a primary contact on radar.

The primary contact is believed to have been a glider. [The BE55 and Extra pilots] elected to route through the Odiham MATZ tracking approximately 3NM west of Lasham airfield, which is a notified glider site.

[The BE55 and Extra pilots] were operating under a Basic Service with Farnborough LARS West, whose frequency was of moderate-to-high traffic loading at the time of the incident.

CAP774 states that a Basic Service is provided to give: …*advice and information useful for the safe and efficient conduct of flight. 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*.

No report of an Airprox or any confliction was made on the Farnborough West frequency.

UKAB Secretariat

The ASG29 and BE55 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[2] If the incident geometry is considered as converging then the BE55 pilot was required to give way to the ASG29 glider.[3]

Comments

BGA

Recent airspace changes have contributed to significantly increased traffic to the west of Lasham. Pilots would be wise to make use of all Electronic Conspicuity methods available to them when transiting this area.

Summary

An Airprox was reported when an ASG29 and a BE55 flew into proximity 3NM west of Lasham at 1455Z on Thursday 16th September 2021. Both pilots were operating under VFR in VMC; the ASG29 pilot was listening out on the Lasham Gliders frequency and the BE55 pilot was in receipt of a Basic Service from Farnborough LARS West.

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.

The Board first considered the actions of the ASG29 pilot a heard from a glider pilot member that the area to the west of Lasham had become increasingly busy over recent years and so all glider pilots operating in the area are encouraged to use any means available to them to not only gain situational awareness of other aircraft but also to highlight their presence to other airspace users. The Board noted that the ASG29 had been fitted with a transponder but that this had not been selected on and members felt that, given the ASG29 pilot's change of plan to remain on a local soaring flight, they may have been better served by highlighting their presence to ATC and other aircraft by switching on their transponder. Indeed, noting that the BE55 pilot's electronic conspicuity (EC) equipment had been compatible with transponding aircraft – but not with the type of EC equipment that the ASG29 pilot had switched on (**CF6**) – the Board felt that the non-selection of the ASG29's transponder had been contributory to the Airprox (**CF3**, **CF4**). The Board agreed that, without a surveillance-based ATS and EC equipment that could not detect the BE55, the ASG29 pilot had not had any situational awareness of the presence of the other aircraft (**CF5**).

Turning to the actions of the BE55 pilot, the Board agreed that they had selected a reasonable track to keep themselves clear of the immediate vicinity of Lasham and noted that they had requested an individual Basic Service from Farnborough LARS but had been flying in company with an Extra. Controller members suggested that, given how busy the Class G airspace around Farnborough has become, the BE55 and Extra pilots may have been better served to request an ATS as a single speaking unit. This would have reduced the workload on the Farnborough controller and may even have enabled a higher level of Service to have been agreed. Members noted that the BE55 pilot had not received any Traffic Information from the Farnborough controller (acknowledging that a busy controller with high-to-medium traffic levels would not normally be able to issue Traffic Information to pilots under a Basic

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

Service) and also that their EC equipment had not provided any information as to the presence of the ASG29 due to it being incompatible with the type of EC that the glider pilot had been operating (**CF6**), and so agreed that the BE55 pilot had not had any situational awareness of the presence of the glider (**CF5**). This had left the BE55 pilot relying on their lookout for the detection of potential threats to their aircraft, but they did not sight the ASG29 (**CF7**).

The Board then briefly considered the actions of the Farnborough LARS controller and noted that they had not been required to monitor the BE55 as they were providing its pilot with a Basic Service (**CF1**). Once again the discussion turned to the transponder fitted to the ASG29 but selected off. Some members questioned whether the STCA at Farnborough might have been expected to alert had the glider been transponding and it was confirmed by an ATC advisor that the STCA would likely have alerted had the ASG29 been transponding. Therefore, the Board agreed that the non-utilisation of the STCA barrier had been contributory to this Airprox (**CF2**).

Finally, the Board considered the risk involved in this event. The Board wished to thank the ASG29 pilot for their GPS log file, as this greatly enhanced their understanding of the geometry of this event. Members took into account the fact that the recorded separation was derived from 2 different sources (each subject to different errors and thresholds) and also considered the ASG29 pilot's assessment of the risk of collision. The Board agreed that the ASG 29 pilot had not described a situation where a risk of collision had existed and this had been supported by the recorded data. Therefore, the Board agreed that safety had been reduced but there had been no risk of collision – Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2021181			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
	• Electronic Warning System Operation and Compliance			
2	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			
	• Tactical Planning and Execution			
3	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
4	Human Factors	• Transponder Selection and Usage	An event involving the selection and usage of transponders	
	• Situational Awareness of the Conflicting Aircraft and Action			
5	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late or only generic, Situational Awareness
	• Electronic Warning System Operation and Compliance			
6	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			
7	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[4]

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 Farnborough LARS West controller was not required to monitor the flight of the BE55 under the terms of a Basic Service.

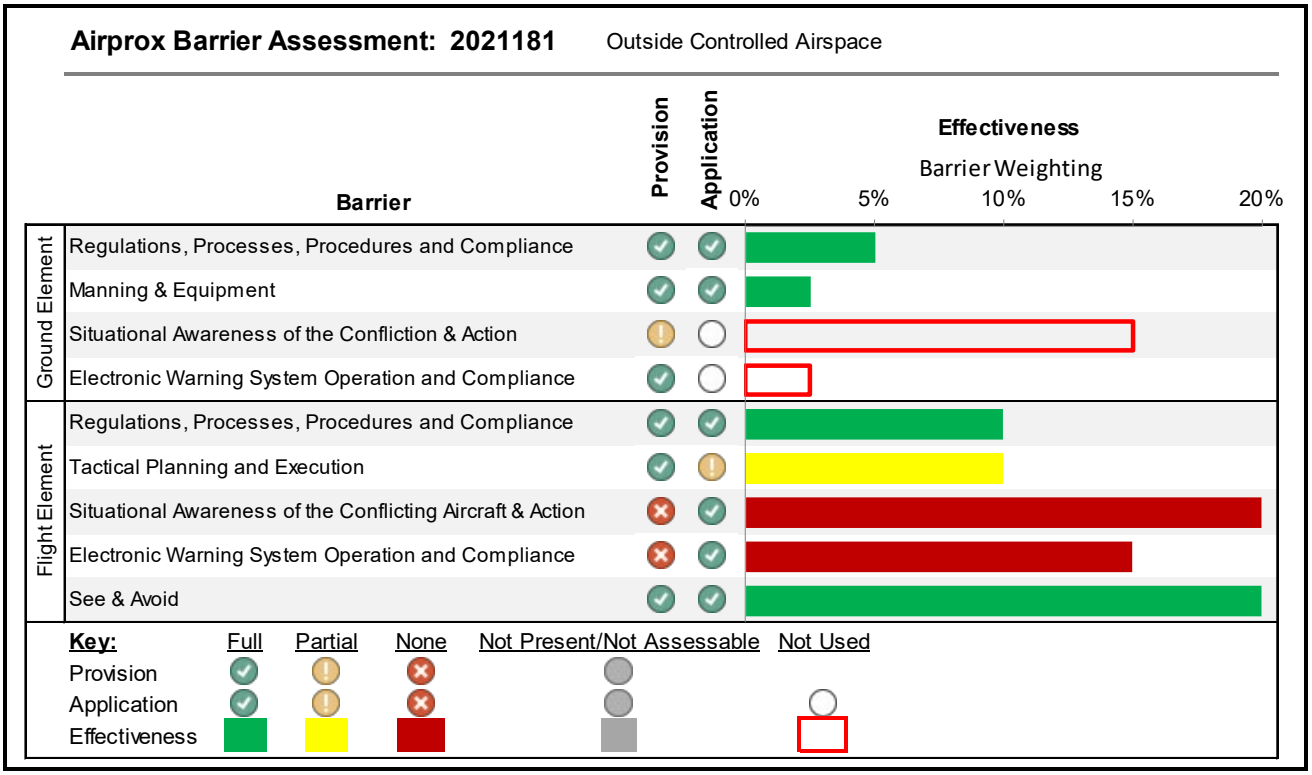
Electronic Warning System Operation and Compliance were assessed as **not used** because the STCA at Farnborough will not generate an alert against a non-transponding radar contact.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the ASG29 pilot, having modified their plan to remain in the local area, did not select their transponder to on.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any situational awareness of the presence of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the electronic conspicuity equipment carried by the BE55 pilot could not detect the signals from the electronic conspicuity equipment that was functioning at the time on the ASG29.



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