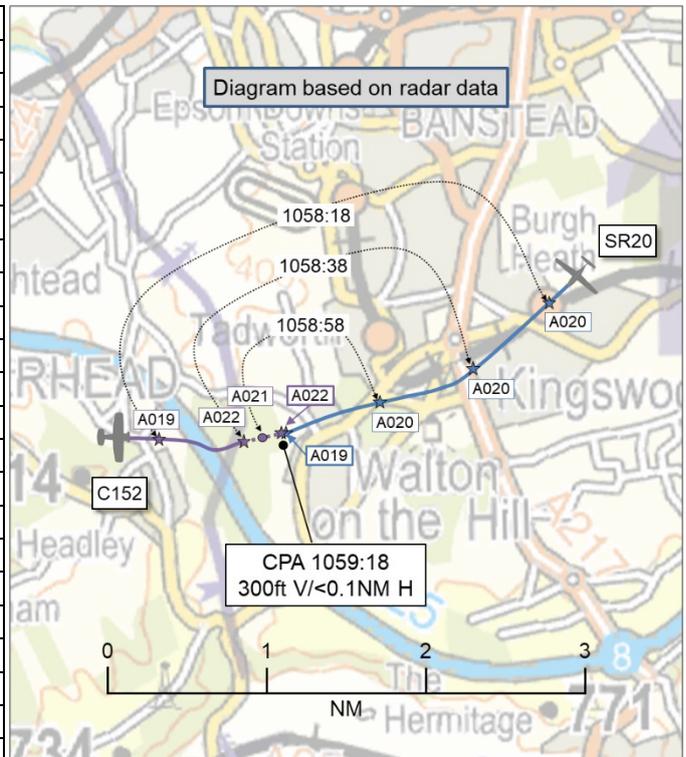


**AIRPROX REPORT No 2025173**

Date: 05 Aug 2025 Time: 1059Z Position: 5117N 00015W Location: NW of Walton-on-the-Hill

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	SR20	C152
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	Between frequencies	Redhill Tower
Altitude	1900ft	2200ft
Transponder	A, C, S	A, C
<b>Reported</b>		
Colours	White/blue	White/red/blue
Lighting	Strobes, nav, Indg	Beacon, Indg
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2000ft	2300ft
Altimeter	QNH (1022hPa)	QNH
Heading	260°	090°
Speed	134kt	115kt
ACAS/TAS	TAS	Not fitted
Alert	None	N/A
<b>Separation at CPA</b>		
Reported	200ft V/0.25NM H	200ft V/0m H
Recorded	300ft V/<0.1NM H	



**THE SR20 PILOT** reports they were routing westbound on a Basic Service with Farnborough [they thought] to transit their zone via Worplesdon to the M3/J4. Approaching Walton-on-the-Hill near the M25 they observed an aircraft, not detected on the SR20 [built-in] TAS, to their right perform a loop. The aircraft fell out of that loop and immediately entered another loop. A right turn did not seem prudent as [the other aircraft] was looping towards the Heathrow CTR. They took control from their student, disengaged the autopilot, closed the throttle and descended as the aircraft appeared to go over the top of them. They [assessed that they] had not seen the aircraft early enough and [the C152 pilot] had clearly not seen them. [They opined that] performing aerobatics over a road is not a sensible idea, they were at 2000ft and they suggested that at the apex of [the C152's] loop it would have been close to or inside the LTMA.

The pilot noted that they had first seen the other aircraft at 1NM or less on their right, bearing 045° and performing aerobatics. They avoided the other aircraft by disengaging the autopilot and closing the throttle to descend.

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

**THE C152 PILOT** reports that, as far as they remembered, they were flying along the M25 motorway eastbound towards the Redhill Aerodrome VRP "M25/M23 Motorway Junction" at about 2000ft to 2300ft and about 1 or 2NM west of Reigate Hill, so about 3-4NM west of the Junction VRP. They were in contact with Redhill Tower on the radio for the entire flight and Redhill squawk 3767. [They noted that] there were many possible radio stations covering this area - Redhill Tower, Farnborough West, Farnborough East, Gatwick Director, Heathrow Special, Biggin Approach, Kenley Radio. As they had done a HASELL check, at 2300ft they started a loop with a nose down attitude approximately heading east and saw a Cirrus pass below and under their nose approximately heading west. They delayed the loop pull-up to allow more time for the SR20 to pass, presuming their closing speed to be about 300kt.

When the SR20 had passed and was safely clear, they then pulled up to an inverted position in a loop at about 2300ft QNH. From the inverted position they could see that the SR20 had continued straight, heading west and was well clear past them, so they continued with the loop descent to roll out on an easterly heading towards the Redhill Motorway Junction VRP.

They had just written the ATIS down when they had first seen the SR20 1NM ahead and below them.

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

**THE BIGGIN HILL CONTROLLER** reports that neither aircraft was receiving a service from Biggin Hill ATC at the time of occurrence. [The SR20 pilot], when north of Kenley, informed the ATCO that they were requesting to change frequency to Farnborough. The ATCO instructed the pilot to squawk conspicuity and continue with Farnborough. It appears that the [Airprox] occurred 3min later, with [the SR20] squawking 7000.

**THE FARNBOROUGH CONTROLLER** reports that the aircraft concerned were not on their frequency and nothing was declared by any parties reference to this event.

**THE REDHILL CONTROLLER** reports that [the C152 pilot] was on a Basic Service, and no incident was reported by them at this time. The [SR20] had no involvement with Redhill Tower.

## Factual Background

The weather at Biggin Hill Airport was recorded as follows:

METAR EGKB 051050Z 28012KT 9999 FEW040 18/07 Q1022

## Analysis and Investigation

### UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the SR20 was positively identified using Mode S data. The C152 was positively identified by reference to the Redhill squawk 3767 and pilot's report. The C152 was seen to make significant altitude and track changes, operating between 1900ft and 2600ft within the minute prior to CPA. Further analysis of other aircraft tracking sources detected the SR20 using ADS-B data, but the C152 was not detected.

CPA was assessed to have occurred at 1059:18 with less than 0.1NM lateral and 300ft vertical separation (Figure 1).

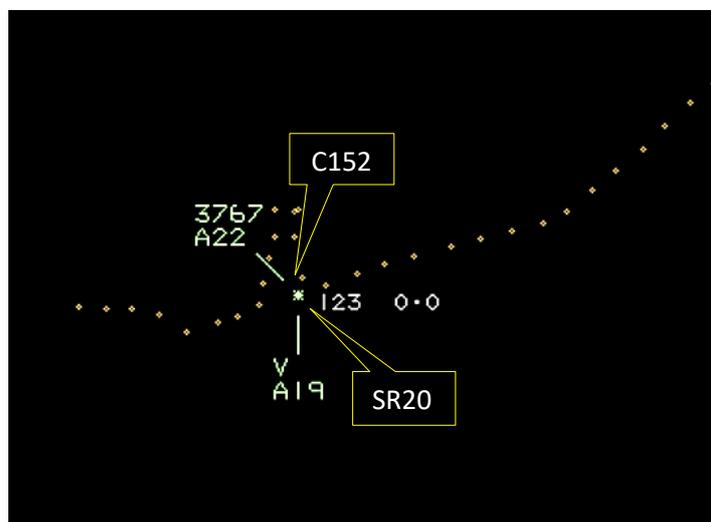


Fig 1 - Time 1059:18

The SR20 and C152 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>1</sup> If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.<sup>2</sup>

## Summary

An Airprox was reported when an SR20 and a C152 flew into proximity at Walton-on-the-Hill at 1059Z on Tuesday 5<sup>th</sup> August 2025. The SR20 pilot was operating under VFR in VMC and between frequencies, and the C152 pilot was operating under VFR in VMC in receipt of a Basic Service from Redhill.

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

Information available consisted of reports from both pilots, radar photographs/video recordings, ADS-B data, and reports from the air traffic controllers 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 considered the actions of the SR20 pilot, noting that the pilot had left Biggin Hill's frequency to change to Farnborough and had been between frequencies at the time of the Airprox. The Board wondered why the pilot had not contacted Farnborough sooner, noting that the Airprox was recorded as having occurred some 3min after they had left the Biggin Hill frequency, and members agreed that it may have been prudent for an R/T call to Farnborough to have been made in that time and to have been in receipt of a FIS (**CF2**). The Board noted that the SR20 had been fitted with TAS equipment capable of detecting the C152, but that it had not done so, and members agreed that the electronic conspicuity (EC) device in the SR20 had not alerted as would have been expected (**CF5**). The Board felt that, without information from either a FIS or their EC equipment, the SR20 pilot had been unable to receive information on the conflicting traffic, and members agreed that the SR20 pilot had had no situational awareness of the presence of the C152 (**CF4**). The Board further noted that the SR20 pilot had seen the C152 manoeuvring off to their right and had manually descended the SR20 to increase separation. Members agreed that the SR20 pilot had been concerned by the proximity of the C152 (**CF6**).

Moving their attention to the actions of the C152 pilot, the Board noted that the pilot had been teaching aerobatics in a relatively confined space and that, although members acknowledged the use of the road as a line feature to maintain accuracy during the manoeuvres, they felt that the pilot may have been better served to have performed the exercise in a less congested area with fewer restrictions. Members agreed that the location selection could have been fully considered during the preflight briefing stage (**CF3**). The Board also discussed the use of the 7004 squawk and wanted to highlight that this would alert ATC units that an aircraft is performing high energy or aerobatic manoeuvres, thus providing controllers with the ability to provide considerate and informed Traffic Information for FIS users requiring that service. While considering planning and preparation of aerobatic exercises, the Board believed that, overall, had the pilot not been operating to the north of Redhill and communicating with them, then they may also have been able to make better use of a surveillance-based FIS with another ATS unit. Members agreed that the instructor had potentially missed a training opportunity by not utilising these services and, with no information regarding the presence of the SR20 through either EC equipment or a FIS, members agreed that prior to the sighting the C152 pilot had had no situational awareness of the presence of the SR20 (**CF4**). Nonetheless, the Board was pleased to note that the C152 pilot had seen the SR20 during their exercise and had held off completing a manoeuvre to monitor the position of it.

The Board then considered the actions of the Redhill controller, noting the controller had been providing a Basic Service to the C152 pilot. Members agreed that the Redhill controller had not been required to monitor the C152 under the terms of a Basic Service (**CF1**) and would not have known about the SR20 in any case.

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<sup>1</sup> (UK) SERA.3205 Proximity.

<sup>2</sup> (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

In concluding their discussion and assessment of collision risk, the Board took into account that neither pilot had had situational awareness of the other's aircraft prior to sighting it. The Board noted that, although the SR20 pilot had been concerned by the proximity of the C152, they had been able to increase separation between the two aircraft and the C152 pilot had also seen the Cirrus in sufficient time to adjust their plan and complete their manoeuvre only after the Cirrus had passed. Members agreed that, although safety had been degraded, there had been no risk of collision. As such, the Board assigned Risk Category C to this event.

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

### Contributory Factors:

	2025173			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Ground Elements</b>				
<b>• Situational Awareness and Action</b>				
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
<b>Flight Elements</b>				
<b>• Tactical Planning and Execution</b>				
2	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
3	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
4	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
<b>• Electronic Warning System Operation and Compliance</b>				
5	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
<b>• See and Avoid</b>				
6	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C.

### Safety Barrier Assessment<sup>3</sup>

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 Redhill controller was not required to monitor the C152 under the terms of a Basic Service.

#### **Flight Elements:**

**Tactical Planning and Execution** was assessed as **partially effective** because the SR20 pilot could have requested a surveillance-based FIS in a timelier manner, and the C152 pilot could have chosen a less congested location for the exercise undertaken.

<sup>3</sup> 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 SR20 pilot nor the C152 pilot had situational awareness of the other aircraft.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because the electronic conspicuity equipment fitted in the SR20 did not alert as expected.

<b>Airprox Barrier Assessment: 2025173</b>		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 Conflication & 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>		Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	●				
Application	✓	⚠	✗	●		○		
Effectiveness								