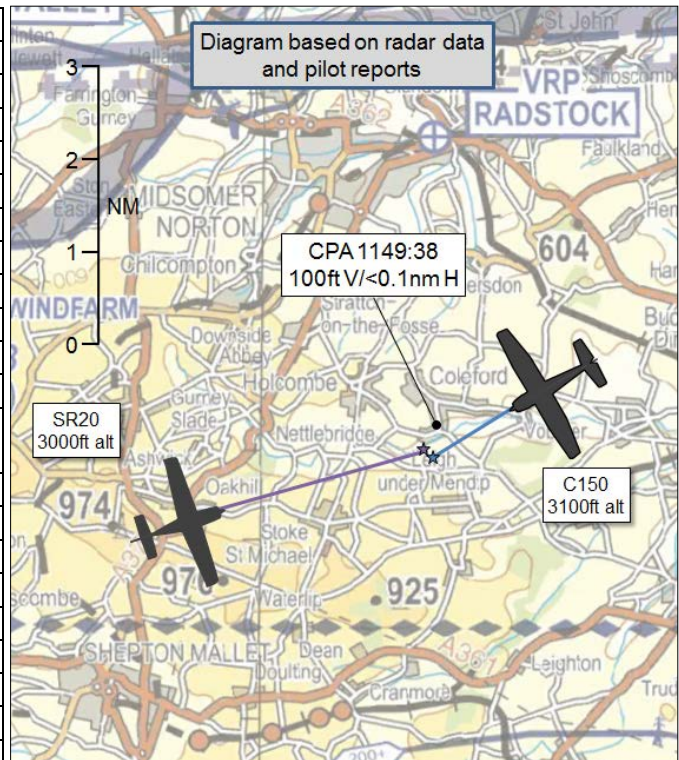


**AIRPROX REPORT No 2017081**

Date: 07 Apr 2017 Time: 1149Z Position: 5113N 00226W Location: W Frome

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	C150	Cirrus SR20
Operator	Civ Pte	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Yeovilton	
Altitude/FL	FL027	FL026
Transponder	A, C, S	A, C, S
<b>Reported</b>		
Colours	Red, White	White
Lighting	Nav	Strobe, Landing, Wing-tip, Nav
Conditions	VMC	VMC
Visibility	>10km	'Good'
Altitude/FL	3500ft	~3000ft
Altimeter	QNH (1026hPa)	NK
Heading	248°	NK
Speed	70kt	135kt
ACAS/TAS	Unknown	Not fitted
Alert	Unknown	N/A
<b>Separation</b>		
Reported	2-300ft V	1-300ft V/150-300m H
Recorded	100ft V/0.1nm H	



**THE C150 PILOT** reports that he was in the Trowbridge area and was undertaking a DABLE<sup>1</sup> check, when, during the look-out phase in a climb, he spotted a white Cirrus aircraft below the nose to the left. He requested a climb to avoid from ATC (he recalled) [UKAB note: the RT transcript does not record this subsequent climb call, but it appears that there may have been reception issues given that the C150 pilot asks for a radio check shortly after the incident]. The Cirrus passed around 2-300ft below and to the left, but he did not consider the aircraft to be in any immediate danger. A radio call reporting the Airprox wasn't made at the time due to a lack of knowledge on the procedure; however, he has now read up on it and is fully aware of his responsibilities for the future.

He assessed the risk of collision as 'Low'.

**THE CIRRUS SR20 PILOT** reports that he was informed about the Airprox some months after the event and couldn't recall exact flight details such as the weather, pressure etc. However, he did remember the incident, he was monitoring the Bristol frequency (without calling on it) to get a feel for traffic in the area, and did recall hearing someone leaving CAS, but wasn't sure whether it was the Airprox aircraft or not. He often calls Bristol when transiting nearby to ask for a clearance through the zone, and 70% of the time gets one, but the cloud base on the day meant that he thought that he wouldn't be able to transit through the zone straight and level, so he opted to skirt around it. He had been looking at his map to make sure he was clear of the zone and when he looked up he saw the other aircraft in front, above and to his right. He only had 10 seconds at most from first sighting it to passing, but he could see that they were not on a collision course. He couldn't tell whether the other aircraft was climbing, but he could see that it was wings level and didn't appear to change direction.

<sup>1</sup> DABLE check – Direction (check heading), Airspeed, Balance (rudder), Lookout, Engine (temperature and pressures).

He opined that he didn't like to skirt around the edge of controlled airspace, because it pushes GA traffic into close proximity, but sometimes there is no other option. The incident has made him more inclined to ask for a Traffic Service in similar circumstances.

He assessed the risk of collision as 'None'.

### Factual Background

The weather at Yeovilton was recorded as follows:

METAR EGDY 071150Z 22003KT 9999 FEW025 15/08 Q1027 BLU NOSIG=

A portion of the RT transcript between Yeovilton LARS and the C150 is reproduced below, RT calls by Yeovilton LARS to and from other aircraft have been removed:

To	From	Speech Transcription	Time
VL LARS	C150	Yeovil Radar (C150 c/s) request basic service	1144.51
C150	VL LARS	Station calling Yeovil Radar say again callsign	1144.57
VL LARS	C150	Yeovil Radar (C150 c/s) request basic service	1145.00
C150	VL LARS	(C150 c/s) Yeovil Radar basic service Portland 1023 squawk 4370	1145.05
VL LARS	C150	Squawk 4370 are we err staying err with you (C150 c/s)?	1145.07
C150	VL LARS	(C150 c/s) pass intentions	1145.27
VL LARS	C150	Altitude 2000 feet routing err towards err Dunkeswell, we are currently err about four err miles to the north west of Trowbridge (C150 c/s)	1145.34
C150	VL LARS	Roger request your altitude, Portland 1023	1145.52
VI LARS	C150	Altitude 2000 feet (C150 c/s)	1146.04
C150	VL LARS	(C150 c/s) roger and will your routing take you through Yeovilton MATZ?	1146.07
VL LARS	C150	No we will be avoiding err the Yeovil MATZ we're going overhead err Bridgewater err (C150 c/s)	1146.11
C150	VL LARS	(C150 c/s) roger report visual with Dunkeswell changing en route	1146.19
VL LARS	C150	Wilco (C150 c/s)	1146.23
VL LARS	C150	(C150 c/s) request altitude change to 3000 feet	1148.04
C150	VL LARS	(C150 c/s) roger climb at your discretion	1148.09
VL LARS	C150	(C150 c/s)	1148.13
C150	VL LARS	(C150 c/s)request radio check	1155.03
VL LARS	C150	(C150 c/s)readability five how me?	1155.09
C150	VL LARS	Readability five (C150 c/s)	1155.12
C150	VL LARS	(C150 c/s)squawk 7000 freecall Dunkeswell good day	1214.09
VL LARS	C150	Squawk 7000 err freecall err Dunkeswell (C150 c/s)	1214.13

## Analysis and Investigation

### UKAB Secretariat

Due to an initial reporting of the wrong time of Airprox, Yeovilton ATC initially believed that they were not providing a service to the C150 pilot. However, it was subsequently discovered that the Airprox took place earlier in the day. Although a report from the Yeovilton controller was not available, the RT transcript revealed that the C150 had indeed been receiving a Basic Service from Yeovilton, but had not mentioned the incident on the RT. NATS radar screen shots show the relative position of the C150 and the SR20 at 1149:19 (Figure 1). This was not the same radar as the one seen by the Yeovilton controller, although screenshots from the Yeovilton radar indicate that both aircraft were showing on their radar. CPA is at 1149:39, Figure 2; the SR20 is indicating FL028 and the C150 FL027 and the lateral distance is 0.1nm.

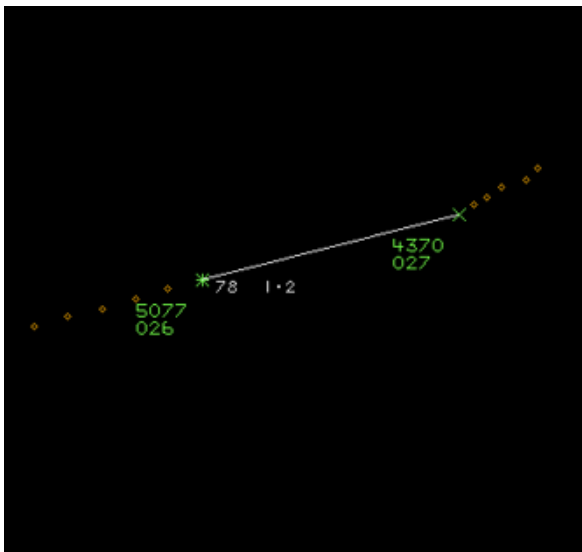


Figure 1 1149:19 (C150 Squawking 4370, SR20 5077)

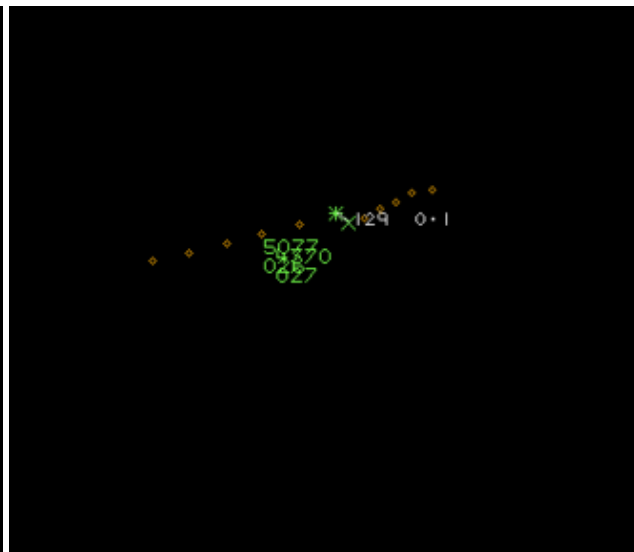


Figure 2 1149:39 CPA

Under a Basic Service a controller is not required to monitor a flight and collision avoidance is the responsibility of the pilots involved.

The C150 and SR20 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 head-on or nearly so then both pilots were required to turn to the right<sup>3</sup>.

### Summary

An Airprox was reported when a C150 and a SR20 flew into proximity at 1149 on Friday 7th April 2017. Both pilots were operating under VFR in VMC, the C150 pilot in receipt of a Basic Service from Yeovilton and the SR20 pilot not in receipt of an ATS.

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

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies and radar photographs/video recordings.

The Board first looked at the actions of the C150 pilot. He was receiving a Basic Service from Yeovilton and some members wondered whether he might have been better served in trying to get an ATS from Bristol because he was closer to their airspace. Other members also commented that, under a Basic Service, the controller was not required to monitor the flight, or provide Traffic

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

<sup>3</sup> SERA.3210 Right-of-way (c)(1) Approaching head-on.

Information; in this respect, he could have asked Yeovilton for a Traffic Service, which would have given him Traffic Information on other traffic (although there was no guarantee that the Yeovilton controller would have been able to provide it). They also noted that, under a Basic Service, the C150 pilot didn't need to ask ATC for permission to climb<sup>4</sup> and wondered whether this had delayed his actions on sighting the SR20. Nevertheless, members noted that he had reported that he saw the other aircraft with enough time to ask for a further level change to climb above it, and the Board commended him for his look-out.

For his part, the SR20 pilot was entitled to operate as he did, routing just outside controlled airspace, but the Board agreed with his comment that he could have asked Bristol for a radar service, which may have provided him with Traffic Information. Although in this case there was no indication that the pilot didn't understand the nuances of a listening squawk, the Board thought it worth noting that wearing a listening squawk did not mean that controllers would look out for pilots and offer collision warnings, it was in place solely for the purpose of allowing controllers to call up pilots of aircraft that may affect their traffic or be about to infringe their airspace. The Board noted that the pilot had just been checking his map prior to the Airprox and commented that this served as a timely reminder that cockpit tasks must be interspersed with robust look-out. Notwithstanding, he had seen the C150 with enough time to assess that it was not on a collision track, and had felt that he didn't need to take any action.

Noting that the incorrect time on the initial reporting meant that it was not known that Yeovilton ATC were controlling the C150 until a late stage in the investigation, the Board wished to highlight to pilots the importance of calling the Airprox on frequency, or as soon as possible after landing, preferably informing the ATC unit as well. Luckily, in this case the RT recordings were still available and had proven invaluable.

Turning to the cause of the Airprox, the Board agreed that this had been a conflict in Class G, resolved by the C150 pilot. They determined that although safety had been degraded, timely and effective avoiding action had been taken and that there therefore had been no risk of collision; Category C.

### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: A conflict in Class G resolved by the C150 pilot.

Degree of Risk: C.

#### 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:

#### **ANSP**

**Situational Awareness & Action** was assessed as **not used** because neither pilot had asked for a Traffic Service that could have provided Traffic Information.

#### **Flight Crew**

**Tactical Planning** was assessed as **partially effective** because neither pilot had planned to receive a radar service.

<sup>4</sup> The terms of a Basic Service mean that pilots can change heading and level without needing ATC consent.

<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](#).

**Situational Awareness & Action** was assessed as **ineffective**, neither pilot had situational awareness of the other, either from ATC or from a CWS.

**Warning System Operation and Compliance** was assessed as **not present**.

**See and Avoid** was assessed as **fully effective**, both pilots saw the other and took appropriate action.

