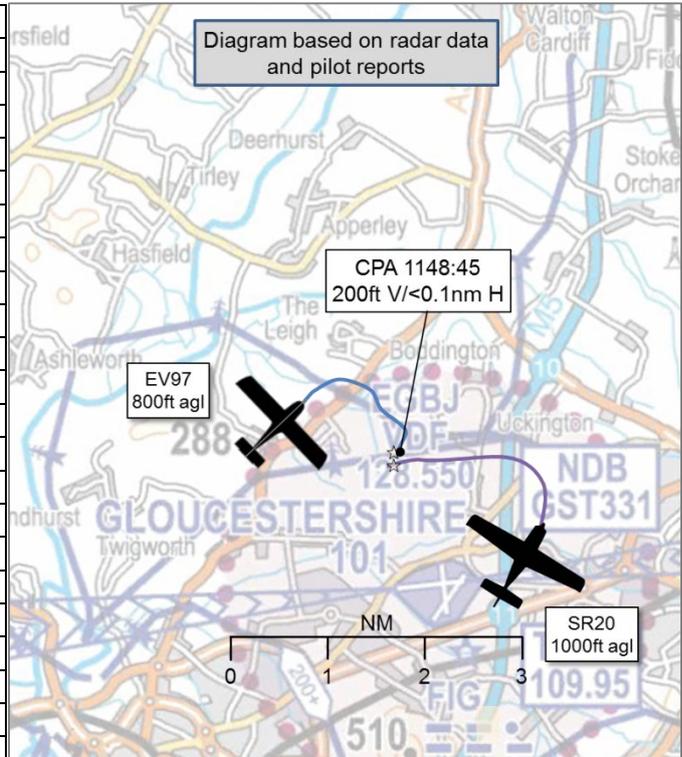


AIRPROX REPORT No 2015215

Date: 31 Oct 2015 Time: 1149Z Position: 5154N 00210W Location: Gloucestershire Airport

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	SR20	EV97
Operator	Civ Trg	Unknown
Airspace	Gloster ATZ	Gloster ATZ
Class	G	G
Rules	VFR	VFR
Service	Aerodrome	Aerodrome
Provider	Gloster Tower	Gloster Tower
Altitude/FL	1000ft	900ft
Transponder	A, C, S	A, C, S
Reported		Not reported
Colours	White	
Lighting	Strobe	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	1100ft	
Altimeter	QFE	
Heading	300°	
Speed	95kt	
TCAS/TAS	TCAS I	
Alert	None	
Separation		
Reported	100ft V/0 H	NK
Recorded	200ft V/<0.1nm H	



THE SR20 PILOT reports he was conducting circuit training on RW09LH. Early in the downwind leg ATC advised him to take up an orbit for spacing. At about the mid-downwind point, the student started an orbit to the right, based on a known feature, whilst in the turn and passing a heading of about 300°, he saw a Eurostar aircraft crossing from the right and less than 100 ft below, the Eurostar aircraft’s heading appeared to be south westerly.

He assessed the risk of collision as ‘Medium’.

THE EV97 PILOT chose not to complete an Airprox report.

THE GLOUCESTER CONTROLLER reports that the SR20 had gone around into the fixed-wing visual circuit and was observed turning onto the downwind leg. The SR20 pilot was then advised of the EV97 rolling out of an orbit onto base leg. The SR20 pilot was further advised that the EV97 was believed to be in his 12 o’clock and he was offered an orbit, if required, for spacing. A few minutes later the SR20 pilot advised that he had been on a collision course with the EV97, and that he would be filing an Airprox.

Factual Background

The weather at Gloucestershire was recorded as follows:

METAR EGBJ 311120Z 15004KT 120V190 9999 FEW014 15/11 Q1021

Analysis and Investigation

CAA ATSI

Both the SR20 and the EV97 pilots had been operating in the RW09 left-hand circuit at Gloucestershire Airport, sharing it with an RF6. On the circuit in question, the RF6 (not visible on the radar recordings), was downwind left-hand, inside and ahead of the EV97, and the SR20 had just completed a go-around. Levels displayed are flight levels.

At 1146:30, the Gloucestershire Tower controller asked the EV97 pilot if he was visual with the RF6, to which the EV97 pilot replied that he was. The controller then offered the EV97 pilot a right-hand orbit for spacing which was accepted by the pilot. The SR20 pilot had completed his go-around and, at 1148:10, as he turned downwind left-hand, the controller passed Traffic Information on the EV97, now midway through its orbit (Figure 1).

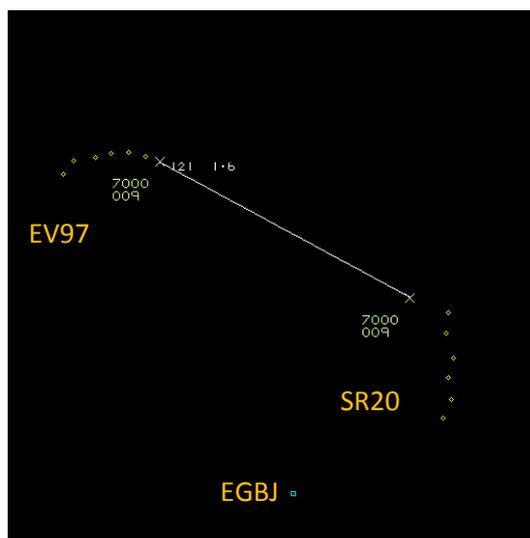


Figure 1: Swanwick MRT - 1148:10

The SR20 pilot acknowledged this information and made his downwind call. The controller passed further Traffic Information on the EV97, offering the SR20 pilot the choice of widening out their circuit, or completing a right-hand orbit. The SR20 pilot elected to complete an orbit (Figure 2).

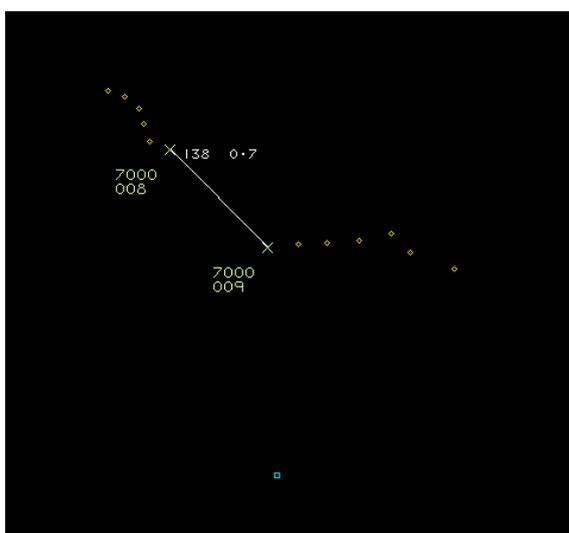


Figure 2: 1148:30

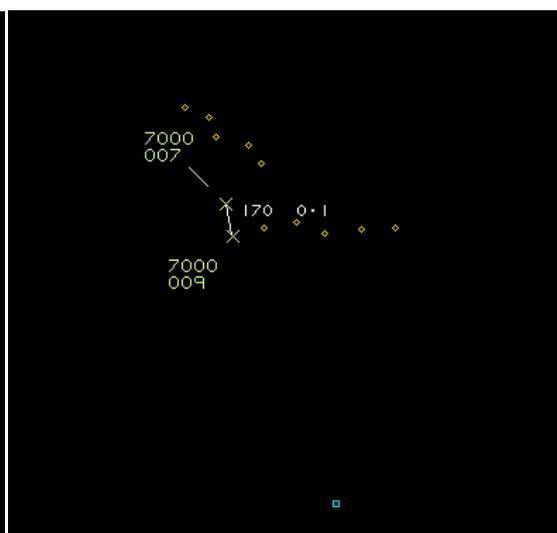


Figure 3: 1148:43

CPA was assessed as having taken place between 1148:43 and 1148:47. Figure 3, at 1148:43, shows a separation of 0.1nm horizontally and 200ft vertically.

In Figure 4, at 1148:47, the horizontal distance was less than 0.1nm but there was no level information from the SR20 which had commenced the right-hand orbit. Figure 5 shows that the SR20 had climbed slightly.

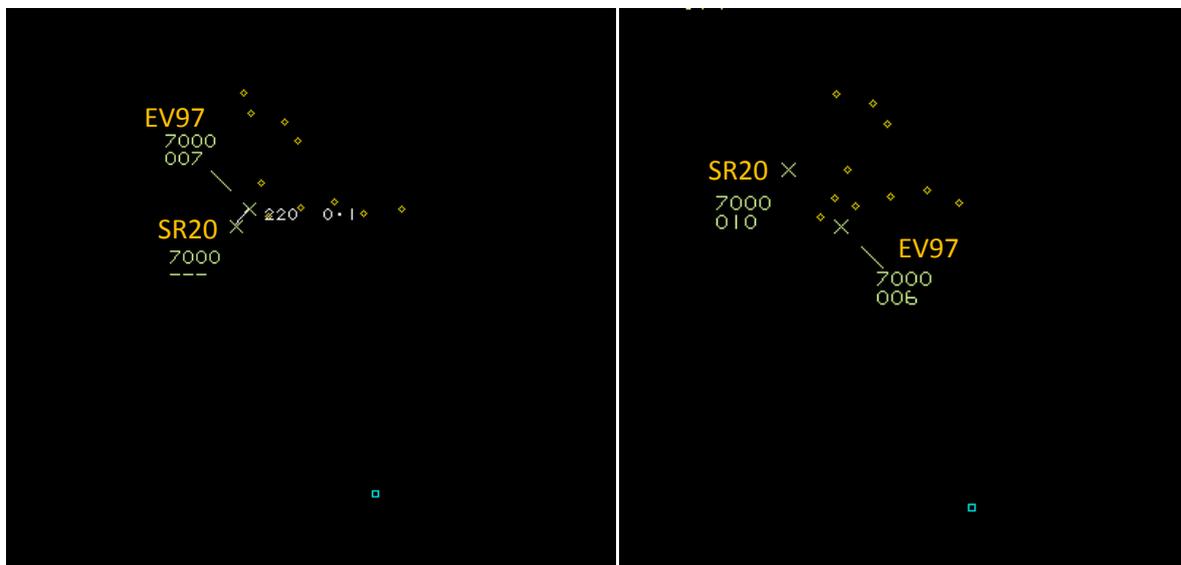


Figure 4: 1148:47

Figure 5: 1148:51

CAP493 (Manual of Air Traffic Services) states that Aerodrome Control shall issue information and instructions to aircraft under its control to achieve a safe, orderly and expeditious flow of air traffic with the objective of:

- (1) Preventing collisions between:
- (a) aircraft flying in, and in the vicinity of, the ATZ;
 - (b) aircraft taking-off and landing;

Note: Aerodrome Control is not solely responsible for the prevention of collisions. Pilots must also fulfil their own responsibilities in accordance with Rules of the Air.'

Although traffic information had been passed to the SR20 pilot on the EV97, the timing of this gave little opportunity for the SR20 pilot to start looking for the EV97 before the aircraft came into proximity with each other. No Traffic Information was passed to the EV97 pilot on the SR20.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. 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 operation².

Summary

An Airprox was reported when a SR20 and an EV97 flew into proximity at 1149 on Saturday 31st October 2015. Both pilots were operating under VFR in VMC and both were in receipt of an Aerodrome Control Service from Gloucestershire tower.

¹ SERA.3205 Proximity.

² SERA.3225 Operation on and in the Vicinity of an Aerodrome.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings, a report from the air traffic controller involved and a report from the relevant ATC authority.

The Board were disappointed that the EV97 pilot had chosen not to comment because this removed an important source of information regarding his perspective of the incident. They wished to remind all pilots and controllers that the Airprox process was aimed solely at determining cause and risk so that all might benefit from learning from the lessons of others; there was no blame or culpability attached to the process which relied on a Just Culture and confidentiality for all participants.

The Board first turned their attention to the actions of the Gloucester Aerodrome Controller. They noted that the Traffic Information given by the Aerodrome Controller to the SR20 pilot had given little time for the pilot to assimilate the information and determine a course of action to avoid a conflict. ATC members felt that, just as the ATCO had already instructed the EV97 pilot to carry out an orbit mid-downwind, so should he have instructed the SR20 pilot to carry out an orbit at the beginning of the downwind leg before the SR20 had arrived at that position. This required the controller to have made a judgement on separation and communicate it to the SR20 pilot as he commenced, or shortly thereafter, his crosswind turn. In short, notwithstanding that the pilots also had responsibilities for preventing collisions in accordance with the Rules of the Air, the crux of the debate was that they felt that it was for the controller to positively control his visual circuit rather than to leave it to the pilots to arrange their own ad hoc sequencing and separation.

Turning to the actions of the SR20 pilot, the Board were concerned that he had pressed on with his downwind leg after having received Traffic Information on the EV97 orbiting ahead, which he had not seen. Acknowledging that this was an instructional sortie and that the student was in control at the time, they wondered whether, given the SR20s higher relative speed to the EV97, the SR20 instructor would have been better served at this point by taking control and either sharply turning away to avoid, widening his circuit, or perhaps climbing to introduce height separation (they noted that the SR20 had climbed slightly but were unsure whether this had been a deliberate act or simply the student inadvertently climbing during his initial orbit).

As for the EV97, the Board could not comment in detail because the EV97 pilot had chosen not to participate. However, they noted that the EV97 pilot had reported that he was visual with the SR20 following Traffic Information from ATC and, although it appeared that he might have descended a little, they wondered why he had not taken more action to avoid the conflict himself rather than continue to turn towards the other aircraft.

After much debate about the responsibilities of the pilots and controllers under an Aerodrome Control Service, the Board determined in the end that the cause of the Airprox was that the Aerodrome Controller had not positively sequenced the aircraft in a timely manner. They decided that safety had been much reduced below normal and therefore assessed the risk as Category B.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Aerodrome Air Traffic Controller did not positively sequence the aircraft in a timely manner.

Degree of Risk: B.