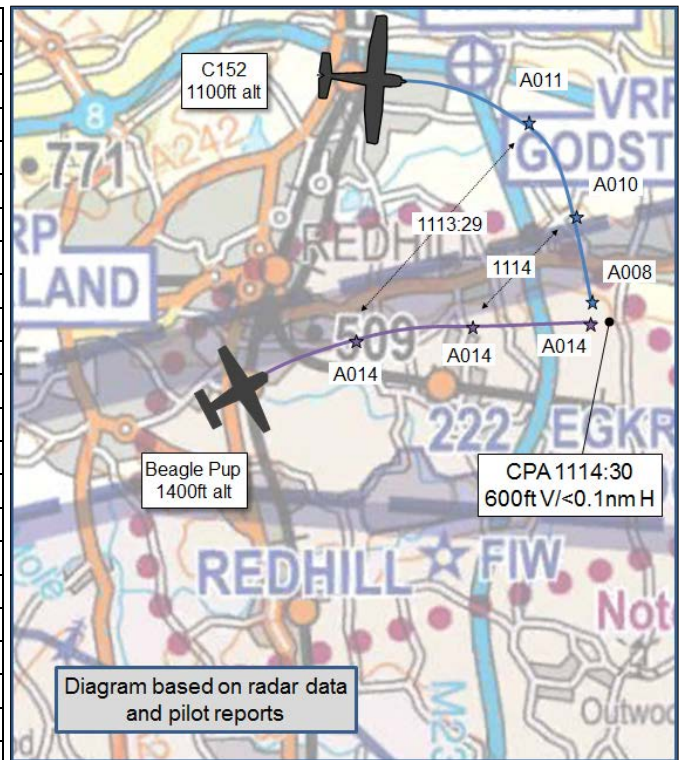


AIRPROX REPORT No 2016082

Date: 22 May 2016 Time: 1115Z Position: 5114N 00006W Location: Redhill

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	Beagle Pup
Operator	Civ Club	Civ Pte
Airspace	Redhill ATZ	Redhill ATZ
Class	G	G
Rules	VFR	VFR
Service	Aerodrome	Aerodrome
Provider	Redhill	Redhill
Altitude/FL	A008	A014
Transponder	A, C	A, C
Reported		
Colours	White, Silver	
Lighting	Beacon	
Conditions	VMC	NK
Visibility	>10km	
Altitude/FL	1000ft	
Altimeter	QNH (1007hPa)	
Heading	170°	
Speed	70kt	
ACAS/TAS	Not fitted	
Separation		
Reported	150ft V/50m H	
Recorded	600ft V/<0.1nm H	



THE C152 PILOT reports that he called for join at Redhill whilst north of Dorking; he was given a squawk and asked to report at the M25/M23 junction. There was a reasonable amount of traffic in the local flying area, so he called “approaching the junction, have the helicopter traffic in sight” because there was a helicopter directly over the junction. He was then given joining instructions to join for a right base for RW26L, and so he began his descent to circuit height and established on a base leg. Whilst on base leg, and continuing to descend, he saw an aircraft passing right to left directly overhead; he understood from the RT that this was Beagle Pup departing the circuit. He commented that it was common practice for traffic to depart at 1400ft in order to avoid any circuit traffic which should be 1200ft or lower. However, he believed that this pilot had been told to depart via the Buckland VRP, but instead ended up departing East. Both aircraft came within a much smaller separation than he would have liked, but there was little he could do because the Beagle Pup was seen so late, partly because it was obscured by the high-wing of the Cessna, and, he opined, he may have been obscured to the other aircraft under its nose.

He assessed the risk of collision as ‘Medium’.

THE BEAGLE PUP PILOT declined to take part in the Airprox process.

Factual Background

The weather at Gatwick was recorded as follows:

METAR EGKK 221050Z VRB02KT 9999 FEW027 16/09 Q1007=
 METAR EGKK 221120Z VRB03KT 9999 FEW034 SCT040 17/08 Q1007=

Analysis and Investigation

CAA ATSI

ATSI had access to reports from the controller and the pilot of the C152, the area radar recordings and RTF of the unit position frequency. An interview with the controller was also conducted. Screenshots produced in the report are provided using the area radar recordings. Levels indicated are altitudes. All times UTC. Neither aircraft could be positively identified on radar, however, the tracks of the two aircraft on the recording closely match the profiles from the report made by the C152, and correlate with the Redhill ATC R/T.

The C152 was returning to Redhill having completed a local flight VFR to the west, and was receiving an Aerodrome Control Service from Redhill Tower on 119.6Mhz. The Beagle Pup was outbound from Redhill, on a local flight VFR to the east and also receiving an Aerodrome Control Service from Redhill Tower on 119.6Mhz.

At 1101:00 the Beagle Pup pilot called on the tower frequency to book-out his aircraft for a local flight to the west. The tower controller issued taxi instructions to the holding point for Runway 26L. At 1107:18, the Beagle Pup pilot reported ready for departure, was instructed to hold position, and was advised that it would be a Buckland Departure. He acknowledged the instruction to hold position, but did not readback the departure routing; this lack of readback went unchallenged by the controller.

At 1107:32 the C152 pilot requested joining instructions, advising that he was north of Dorking. He was instructed to report at the Junction (VRP) for RW26. At 1110:40 the Beagle Pup pilot was cleared for take-off.

The C152 pilot reported approaching the Junction VRP at 1111:32, and advised that he was visual with the helicopter which was joining ahead of him. The controller instructed him to join for right-base for Runway 26L, advising that he was No 2 and to follow a Katana fixed-wing aircraft, (the helicopter was inbound for a different runway).

At 1112:11 the contact most-likely attributable to the Beagle Pup was observed on the radar replay commencing a right-turn from the Runway 26L climb-out at Redhill (Figure 1).

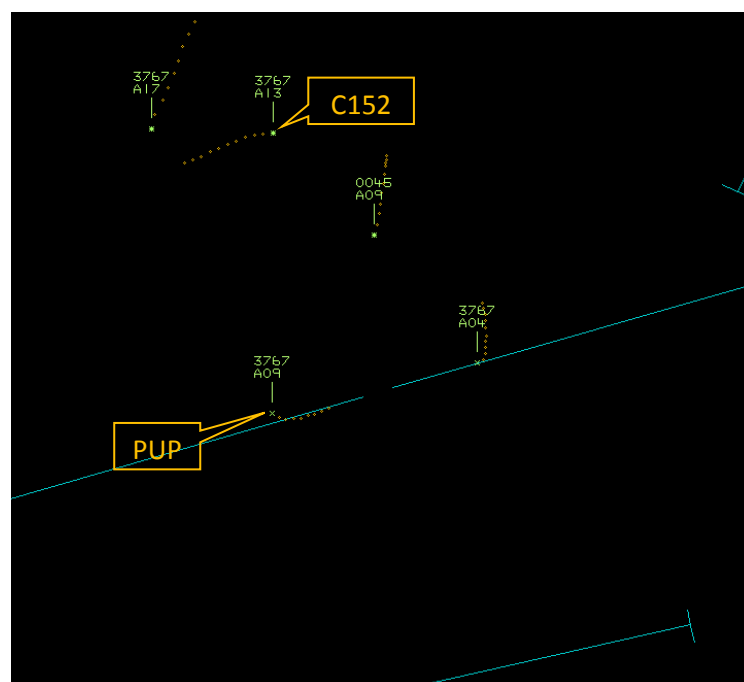


Figure 1 – Swanwick MRT - 1112:11

The C152 pilot reported at the Junction VRP at 1113:05 advising that they were joining right-base for Runway 26L. This was acknowledged by the controller who instructed them to report right-base. The Beagle Pup was observed in a further right-turn to track east at this time (Figure 2).

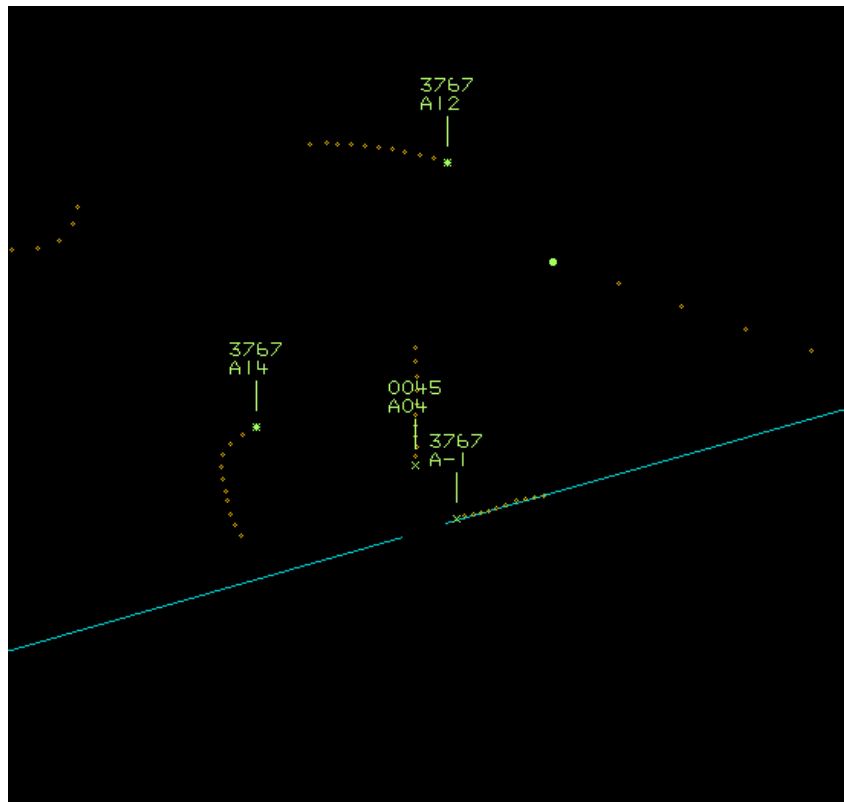


Figure 2 – Swanwick MRT – 1113:05

At 1114:18 the C152 pilot reported on right-base and was instructed to report final by the controller (Figure 3).

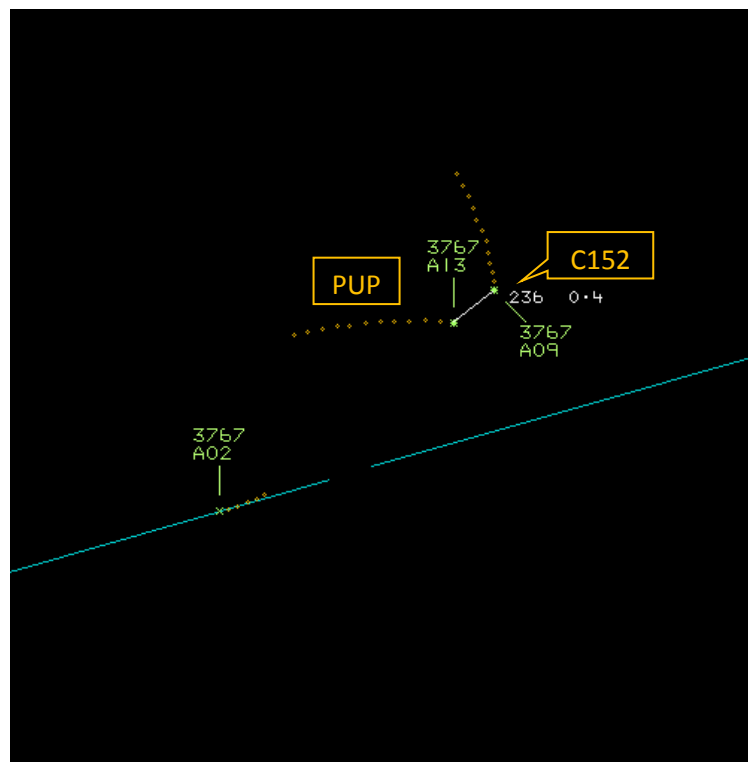


Figure 3 – Swanwick MRT – 1114:18

CPA took place at 1114:30 with the aircraft separated by less than 0.1nm laterally and 600ft vertically (Figure 4).

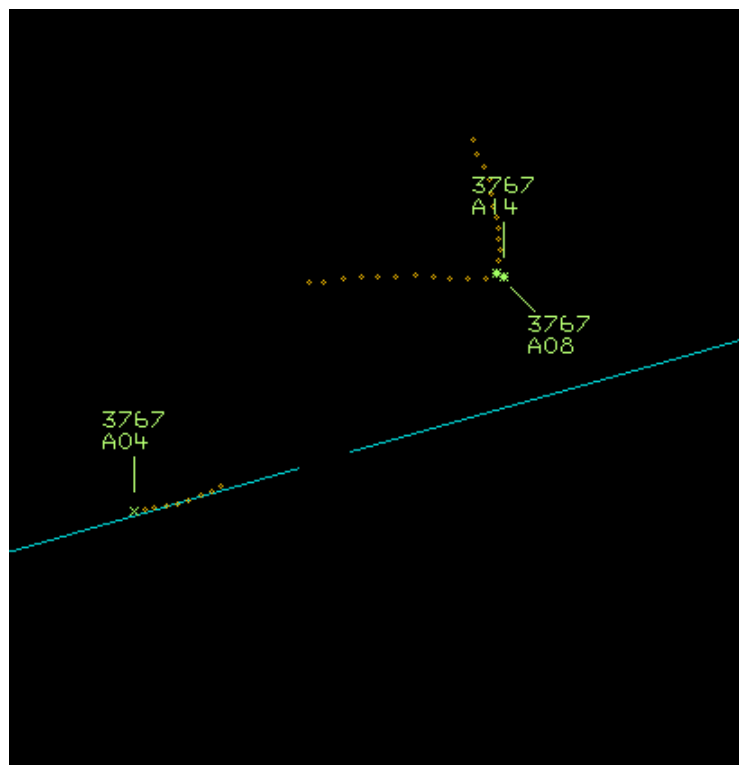


Figure 4 – Swanwick MRT – 1114:30

At 1114:44 the controller asked the Beagle Pup pilot to confirm that they were routing east, which the pilot confirmed. The controller reminded them that they had been given a Buckland departure; the pilot apologized and reported that they were now south-west of the Godstone VRP. The controller acknowledged this, informed them that it was now a Basic Service, and passed Traffic Information on another aircraft operating to the north of Redhill, which was all acknowledged.

The pilot had booked-out on the tower frequency and was clearly heard to state that it was for a flight to the west. When the pilot reported ready, the controller advised them that it was a Buckland Departure. Buckland (Lake) is the westerly VRP and the standard VFR routing is an initial climbout until passed a defined point approximately 1.5nm west of the airfield, before making a right-turn [approximately NW] direct to Buckland.

At interview the controller was asked about the fact that they had not challenged the lack of readback of the departure routing by the Beagle Pup pilot, but stated that they thought that he had read it back. The controller confirmed that they had monitored the movement of the airborne Beagle Pup until they observed it completing its first right-turn away from the climbout. They then switched their attention to other traffic. The controller did not remember exactly at which point they realised that he was routing east and not west, but believed it was probably as they were looking for the inbound C152 on right-base. No reciprocal Traffic Information was passed to the C152 or Beagle Pup pilots because their planned tracks should not have required it. By the time the Beagle Pup pilot was challenged on his routing, CPA had already taken place and the aircraft were diverging.

The ATC tower at Redhill is to the north of and centred on Runway 26/08, and faces south. The second turn of the Pup would have placed it directly behind the controller whilst they were facing the runway, and therefore not within the controller's standard line of sight.

UKAB Secretariat

The C152 and Beagle Pup pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹.

When operating within the ATZ, CAP473 states:

6.1 ATZ adopt the classification of airspace within which they are situated. Therefore aircraft flying within the ATZ are subject to the R of A, the specific conditions of the airspace, and the level of ATS provided at the particular aerodrome as follows:

(1) At aerodromes with an ATC unit, all movements within the ATZ are subject to the permission of that unit. Aircraft will comply with instructions given by RTF and maintain a listening watch. Non-radio aircraft, which have been given prior permission to fly within the ATZ, will comply with visual signals.²

Summary

An Airprox was reported when a C152 and a Beagle Pup flew into proximity at 1115 on Sunday 22nd May 2016. Both pilots were operating under VFR in VMC, and receiving an Aerodrome Service from Redhill; the C152 was joining the circuit at right base and the Beagle Pup was departing the circuit.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilot of the C152, transcripts of the relevant RT frequencies, radar photographs/video recordings, and reports from the appropriate ATC and operating authorities.

The Board first expressed their disappointment that the Beagle Pup pilot had declined to take part in the Airprox process; by not having his perspective on the incident, the exact circumstances could not be fully ascertained, to the detriment of identifying flight safety lessons. The Board sought to assure pilots that the Airprox process does not apportion blame or liability, but instead seeks solely to learn from the experiences and actions of others in order to enhance flight safety.

In trying to ascertain the actions of the Beagle Pup pilot, the Board learned that the R/T transcript had recorded him booking out for a westerly departure, and that the controller had subsequently cleared him to hold and to depart for a Buckland departure (the Buckland VRP is to the north-west of the airfield). However, although the pilot had readback the instruction to hold, he didn't readback the Buckland departure. ATC members commented that the controller should have picked up this lack of readback and then asked the pilot to repeat the clearance. Although the controller recalled at interview that he thought that the clearance had been readback, the transcript showed otherwise. Given that both westerly and easterly departures initially called for a westerly direction of flight before turning, the Board wondered whether the Beagle Pup pilot had simply made a mental slip in his initial call by saying west when he meant east because in his mind he was initially going to fly west anyway. Perhaps not fully conversant with the Buckland Departure, it was conceivable that he might have thought that it also applied to the easterly departure, or perhaps the latter part of the transmission from the controller to use the Buckland Departure may not have been assimilated for reasons unknown. This theory was backed up by his response when challenged by the controller later, he firstly confirmed he was departing east, apologising when the controller advised he was cleared to depart to the west. Whichever, without the Beagle Pup's pilot report it was not possible to know exactly what his reasons for departing east were. Nevertheless, had the controller questioned the lack of readback, members opined that the requirement for the Beagle Pup pilot to positively readback the information might have emphasised in the pilot's mind the direction of departure and the fact that it didn't correspond with what he wanted to do. That being said, the Board also noted that the C152 pilot's call to join right-base, and the controller's responses to him, should have been heard

¹ SERA.3205 Proximity.

² CAP 473 Section1, Chapter 2 Flight Rules.

by the Beagle Pup pilot and so there was also an opportunity for him to have been aware that there might be a conflict as he was departing east. The Board highlighted that all of the above demonstrated the need for pilots to maintain their awareness in and around the visual circuit, listening on the frequency to help aid situational awareness, and reacting as necessary to other traffic.

Turning to the C152 pilot, the Board noted that he had heard the Beagle Pup being cleared to depart to the west, and, having not been given any Traffic Information on anything in his vicinity, would have understandably expected his join to be clear of other traffic. He would then probably have been startled to see the Beagle Pup in a position and on a track that he did not expect. Although it was not known at what point the Beagle Pup pilot had become visual with the C152 (or if indeed he ever was), members noted that, in fact, there had been 600ft separating the two aircraft at CPA, which was much more than the notional 200ft that would have been planned if normal operations had pertained. The Board therefore thought that the startle factor of unexpectedly seeing the other aircraft probably caused the C152 pilot to estimate the two aircraft to be closer than they actually were.

Turning to the cause of the Airprox, the Board quickly agreed that the Beagle Pup pilot had not complied with his clearance to depart to the west. However, they thought that there had been two contributory factors, firstly that the Beagle Pup pilot had not readback his clearance, and secondly that the controller had not challenged that lack of readback. In looking at the risk, and notwithstanding the undesirable outcome of the two aircraft's unplanned crossing of tracks, it was acknowledged that 600ft vertically between the two aircraft presented no risk of collision and the incident was assessed as risk Category C,.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Beagle Pup pilot did not comply with his clearance.

Contributory Factors:

1. An incomplete readback of his departure clearance from the Beagle Pup pilot.
2. The incomplete readback by the Beagle Pup pilot was not challenged by the Aerodrome Controller.

Degree of Risk: C.