

## AIRPROX REPORT No 2010137

Date/Time: 18 Sep 2010 (Saturday) 1429Z

Position: 5228N 00012W  
(Conington - elev 26ft)

Airspace: Conington ATZ (Class: G)

Reporting Ac Reporting Ac

Type: C152 Beagle Pup

Operator: Civ Trg Civ Pte

Alt/FL: 500ft 800ft  
(QFE NR) (QFE 1019mb)

Weather: VMC CAVOK VMC NR

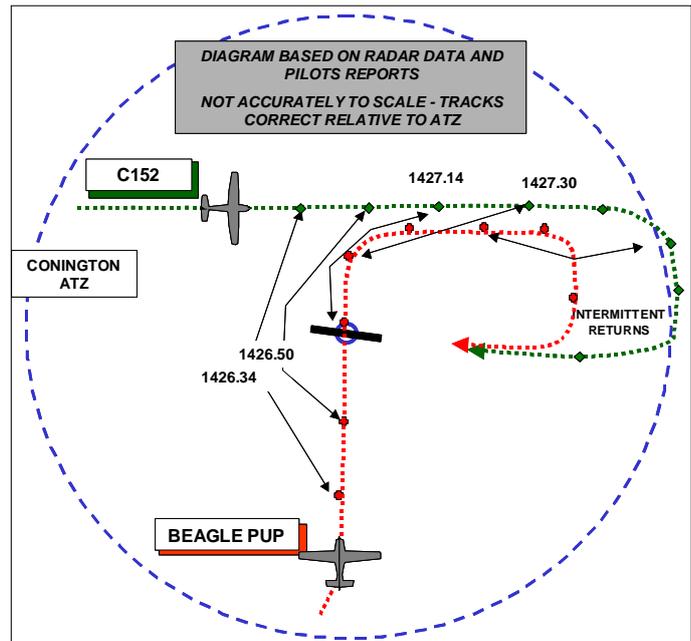
Visibility: >30km 30nm

Reported Separation:

V 30ft/H 30-50m V 30ft/H 0ft

Recorded Separation:

NR (See UKAB Note: (1))



### **BOTH PILOTS FILED**

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

**THE C152 PILOT** reports that he was instructing a student pilot on cct procedures and was in a RH pattern for RW28 at Conington with the surface wind varying between W and NW averaging 10kt. His ac was blue and white but his SSR was unserviceable and he was in receipt of an A/G service from Conington Radio; TCAS was not fitted.

After take-off on RW28 he initiated a simulated engine failure from 700ft in order to demonstrate the relevant drills and recovery. As the subsequent recovery took their ac slightly outside the ATZ and he was aware that another ac had recently reported that it was descending deadside, prior to joining the downwind leg of the cct, he made a radio call *"C/S rejoining downwind from the West"*. As they rejoined the downwind leg from the W, looking out of sun, he saw a Beagle Pup in their 2 o'clock on the deadside at the same level. Abeam the threshold of RW10, his student made a radio call *"C/S downwind"*. He was still visual with the Beagle Pup, which was now in their 3 o'clock deadside, tracking North at the same level.

As they approached the end of the downwind leg he heard the Beagle Pup pilot call downwind. He looked behind to check the horizontal separation between them and was satisfied it was about 1nm and the ac was at a similar level. Having conducted a lookout check to the L&R, the student turned the ac onto base leg, configured it for landing (65kts, 20° flap) and, following a further lookout check L&R at about 800ft, turned the ac onto final approach. As they reached about 500ft at about 0.7nm on the approach, the student remarked that an ac (which it transpired was the same Beagle Pup) had just appeared from their right and beneath them. He (the instructor) then became visual with the ac and estimated that it was 30ft below them and taking up a position about 30-50m away in their 10 o'clock on final, on a track parallel to theirs. The instructor reported an Airprox on the frequency in use and instructed the student to manoeuvre their ac to the right so that they could maintain visual contact with the other ac. He made a radio call to establish what the other pilot's intentions were and was advised that he was landing. The other pilot went on to ask if they had joined on a left base but he informed him that they had been ahead and in the cct pattern. Given that the Beagle Pup pilot's intentions were now clear and it was the lower ac on the approach, he instructed the student to execute a go-around.

He assessed the risk as being high and the remainder of the cct detail was completed without further incident.

**THE BEAGLE PUP PILOT** reports that he was flying solo in a blue and white ac on a private VFR flight from Leicester to Conington, squawking with Mode C in communication with Conington radio. TCAS was not fitted. This was his 4<sup>th</sup> visit to Conington in 2010 and he descended dead-side at 80kt to the south of the field, obtained the airfield information from the 'TWR' which was reported as RW28 RH and he set the QFE of 1019mb. He heard another ac call that he was departing to the W and would join again downwind. As he went cross wind the radio was busy and it was not until he was opposite the RW28 threshold that he could call *'late downwind'*; although he had kept a very good lookout he saw no other ac either in the crosswind or downwind positions.

He does remember hearing another ac call *'final'* and on base leg looked carefully both at the whole length of the final approach both towards and away from the field and saw no other ac before he turned final. He assumed that the other ac had extended on final [downwind] and that that was why he could not see it. The visibility was very good and he did not think it necessary to ask the ac's range as he often did when in doubt.

The Airprox occurred just after he had turned and called final for RW28 when the other ac appeared on his left and passed 30ft above and flying at 60° to his track. The ac disappeared to his right very quickly and there was no need to take avoiding action but nonetheless he assessed the risk as being high.

He was unsure as to whether it is appropriate to give his opinion as to why this Airprox occurred, but in this case elected to do so. The only explanation that he could offer was that the other ac must have been in a blind spot, more probably above than below, as it appeared above him. Similarly he believes that his ac might also have been in the other one's blind spot below it as the other pilot described how he 'popped up' in front of them.

UKAB Note (1): Both ac show in the Conington cct on the recording of the Claxby radar. The Beagle Pup is squawking 7000 with Mode C but the C152 is a primary only contact. The geometry of the ccts flown is as depicted above with the Beagle Pup flying a tighter cct than the C152. The Beagle Pup passes over the RW at 1427:14 tracking N, while the C152 is in its 1 o'clock at about 1nm tracking E, before the former turns E onto downwind 0.1nm inside the C152'S track. At 1428:18 the Beagle Pup commences a R turn onto base leg (1.5nm from the RW threshold) while the C152, having already turned base but 1nm further out (2nm from the RW threshold), is in its 12 o'clock at 1.0nm. At 1428:55, just before the CPA, the C152 disappears from radar on the final turn while in the Beagle Pup's 9 o'clock at about 0.2nm and is not seen again. At the time the Beagle Pup is descending through FL007 (850ft aal) just about to turn final 300m inside the C152. By projection of the C152's position forward by 8 sec the ac get very close (say 50m) at about 1429:00.

UKAB Note (2): Peterborough Conington is a licensed aerodrome with a 2nm radius ATZ; the RW is 3283ft long.

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

Information available included reports from the pilots of both ac and radar recordings.

The Board noted that the radar recordings provided a useful picture of the tracks flown and relative positions of the two ac in the circuit area; unfortunately without a RT transcript, the sequence of transmissions or the ac positions when they were made could not be verified.

Both ac had been operating legitimately in the visual circuit at Conington. Although the C152 had departed from the recognised circuit pattern briefly to conduct a simulated engine failure drill, the pilot [reportedly] made his intentions known and correctly called rejoining downwind, thus establishing the circuit pattern. The radar recording showed that at the time the C152 was in the downwind position

re-establishing the pattern, the Beagle Pup was approaching the overhead to join from the South, with the C152 1nm directly ahead of it crossing from L to R and apparently at the same altitude. The C152 was therefore, in a position where it should have been visible to the Beagle Pup pilot. Indeed at that point the C152 pilot was visual with the Beagle Pup in his 3 o'clock joining at the same level. That being the case, and since the C152 student had called downwind well before the Beagle Pup was in the downwind position, Members agreed that the onus had been on the Beagle Pup pilot to integrate safely behind the C152 and conform to the pattern formed by it. That the C152 [the radar showed] had extended downwind was not considered relevant and the Beagle Pup pilot should either have followed it or gone around if conforming made the circuit excessively long. Some Members doubted whether the Beagle Pup pilot had seen the C152 ahead and therefore he had not been able to integrate with it; a pilot Member pointed out that this is most inadvisable as safe separation in the visual circuit is dependent on pilots establishing and maintaining visual contact with other ac therein, both before joining and when in the pattern itself. [ANO, Rules of the Air, Rule 12 applies].

It appeared to Members that the Beagle Pup pilot had turned final inside the C152 ahead without visual contact with it and that on the final turn the former would have been obscured to the pilots of the high-winged C152; thus for most of the final turn the respective pilots had not seen the opposing ac and separation was by happenstance. Further, both pilots agreed that the separation on final had been minimal. When considering these factors, a small majority of Members agreed that there had been a risk that the ac would have collided.

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

Cause: The Beagle Pup pilot did not establish visual contact with the C152 in order to integrate into the circuit.

Degree of Risk: A.