

AIRPROX REPORT No 2012012

Date/Time: 8 February 2012 1242Z

Position: 5119N 00053W (1¾nm final
RW07RHC @ Blackbushe -
elev 325ft)

Airspace: Blackbushe ATZ (Class: G)

Reporting Ac Reported Ac

Type: PA28-151 C182

Operator: Civ Trg Civ Pte

Alt/FL: 550ft↓ ↓800ft
QFE (1028hPa) QFE (1028hPa)

Weather: VMC CLBC VMC CLBC

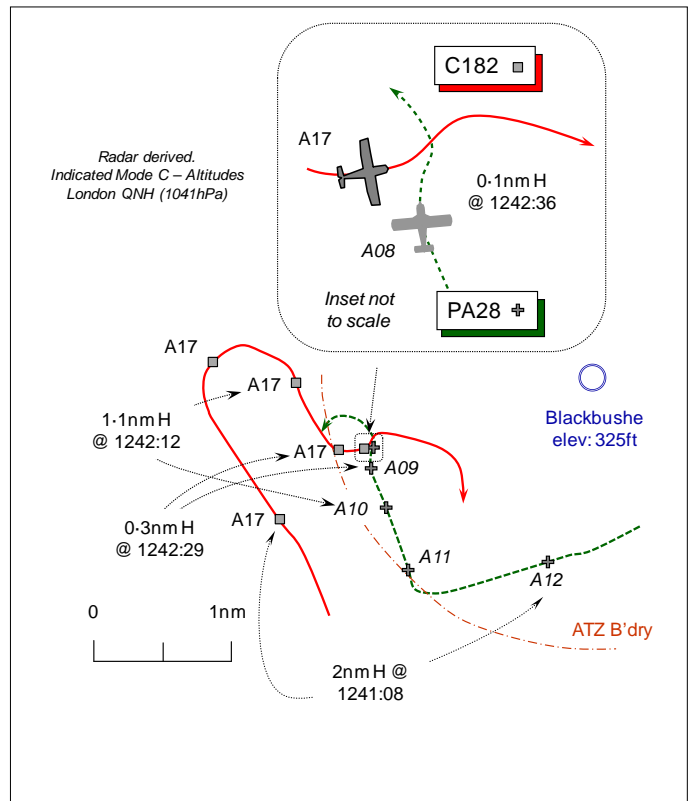
Visibility: 3-4nm 6-7nm

Reported Separation:

300ft V/300m H NK

Recorded Separation:

Contacts merged with 900ft V



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PIPER PA28-151 PILOT, a flying instructor, reports he was instructing a low-hours student in the cct to RW07 RH cct at Blackbushe. They were in communication with the A/D FISO, C/S Blackbushe INFORMATION, on 122.300MHz whilst flying the student's fourth cct. Descending from 800ft to 550ft QFE (1028hPa) at 75kt his student, the PF, had just started to turn from R base onto final (340° - 070°) when he heard the pilot of another ac transmit on the RT what he believed at the time to be a call at LH base-leg for RW25. Thinking the pilot was landing on the reciprocal RW, he looked towards the area of base-leg for RW25, but then caught a glimpse of another aeroplane – the C182 - above him and to his L, in a L turn onto final for RW07. He took control from his student, applied full power and whilst remaining level at 500ft QFE turned towards the dead side - to the N of the RW centre-line. The C182 passed 300ft above him with a 'high' Risk of collision. He then made a somewhat heated radio call to Blackbushe INFORMATION before carrying out an orbit to the L and re-establishing his aeroplane on final approach to RW07, from which he landed.

Subsequently, he went up to the Tower to discuss the events with the FISO and advised that he would be filing an Airprox. His aeroplane is white with blue/black stripes; a squawk of A7010 [operating in a A/D traffic pattern] was selected with Mode C.

THE CESSNA C182 PILOT reports he was inbound to Blackbushe from Lee-on-Solent, VFR at 90kt and was in communication with Blackbushe INFORMATION on 122.300MHz; a squawk of A7000 was selected with Modes C and S on. The cloudbase was about 1700ft with poor visibility.

He was intending to pass to the E of Farnborough to join downwind for RW07RH at Blackbushe. However, he was asked by Farnborough ATC to pass to the W of Farnborough to allow traffic to depart from their airfield, which he complied with. This placed him in a position for a straight-in approach to RW07 at Blackbushe, giving way to cct traffic in the RH cct. After looking to his R, he saw no traffic downwind and declared that he was on final for RW07 at 800ft QFE. Some time later there was an outburst on the radio so he abandoned the approach and departed to the W to reposition and join downwind, from which he landed without issue. The PA28 was not seen.

Once on the ground he attempted to clarify the situation as he had no idea what had happened. Upon speaking with the Control Tower by phone, he believed he was told, incorrectly, that when he called final, there were two ac downwind; however, they were in a LH cct when the declared cct is RH for RW07. As he was on final looking to the R for traffic on a RH cct he did not see the traffic approaching from the L on a LH cct. Clearly, he did not see the PA28 but he was looking for ac approaching downwind from the R, not the L.

His aeroplane is white with blue stripes; the HISL, navigation and landing lights were on.

THE BLACKBUSHE FLIGHT INFORMATION SERVICE OFFICER (FISO) reports that two PA28s were flying ccts to RW07RH. The C182 pilot called for joining instructions and was advised that RW07RH was in use with 2 fixed-wing ac in the Blackbushe cct and given the QFE of 1028hPa. The C182 pilot read back the QFE and runway, he thought. [UKAB Note (1): However, the C182 pilot said RW05 not RW07.] The pilot's next call was for L base for RW05 (sic). He asked the C182 pilot his position and acknowledged his read back but he still could not see the aeroplane; the forward visibility looking to the W of the Tower was unofficially 10km+ but picking out a white ac against a grey sky is difficult. The C182 was seen just before the pilot made his final call so when the C182 pilot called final he advised him that there was one ac ahead on short final - depth perception putting the C182 behind the PA28. Apparently, the traffic ahead was not seen by the C182 pilot, but before the intentions of the C182 pilot could be clarified the PA28 pilot enquired what the C182 was doing. The PA28 pilot elected to orbit L to remain clear and the C182 pilot went around at cct height.

ATSI reports that the Airprox was reported to have occurred 1.7nm WSW of Blackbushe. The Blackbushe Aerodrome Traffic Zone (Class G airspace), comprises a circle radius 2nm centred on the RW07/25, except that part of the ATZ located S of the M3 motorway, from the surface to 2000ft above the aerodrome elevation of 325ft.

The PA28 was operating VFR in the RH cct for RW07 and was in receipt of a BS from Blackbushe INFORMATION on 122.300MHz. The C182 was operating on a VFR flight from Lee-on-Solent to Blackbushe and was also in receipt of a BS from Blackbushe INFORMATION on frequency 122.300MHz.

The Farnborough METARs:

1220Z 04012KT 9999 OVC016 M01/M03 Q1040=
1250Z 05011KT 9999 -SN OVC016 M00/M03 Q1040=

At 1241:00, the PA28 pilot operating in the RH cct for RW07 reported downwind for a touch and go and was instructed to report final. At 1241:08, the radar replay shows that the C182 was 2.5nm WSW of Blackbushe crossing the extended approach track for RW07RH S to N. The pilot of the C182 called Blackbushe INFORMATION and requested joining instructions. The FISO advised the pilot of the C182 that there were two fixed wing ac in the cct and that RW07 was in use, right hand.

[UKAB Note (2): The C182 pilot readback the QFE (1028hPa) “..and runway 0-5 in use [C182 C/S]”, but the FISO did not query the incorrect readback of the RW at this point.

The C182 flew through the extended approach track for RW07RH and made a 180° R turn to position on L base. At 1242:12, the C182 pilot reported “*joining on left base for 05*”. The FISO advised the pilot of the C182 that “..we’re 0-7 with a left hand circuit in use can you just say again your position”, mistakenly stating that the circuit was LH. The pilot of the C182 replied that he was “*to the left of the..05 runway*”. At 1242:12 the C182 was on left base with the PA28 on right base. At 1242:29 the C182 turned onto final for RW07 from left base indicating 1700ft as the PA28 turned onto final from right base at 900ft. The two ac were 0.3nm apart. As the two ac established on final their tracks converged; the C182 at 1700ft and the PA28 at 800ft.

The written report from the FISO stated that he was not visual with the C182 until just before the pilot called on final. When the C182 pilot reported final the FISO advised that there was cct traffic ahead

short final (the C182 appeared to the FISO to be behind the PA28). The pilot of the PA28 made a transmission expressing extreme concern at the proximity of the C182 and advised INFORMATION that he was orbiting at the upwind end of the runway. The report from the pilot of the C182 stated that he was unaware of the presence of the PA28 until the transmission from the pilot.

As both flights were VFR in Class G airspace, the pilots of both ac were ultimately responsible for collision avoidance.

The Manual of Flight Information Services, CAP410 Part B, Chapter 1, Page 1, Paragraph 7.4 states:

‘Joining circuit

Landing direction and traffic information on known traffic flying within the ATZ and the immediate surrounding local area is normally passed when the aircraft is still some distance away from the ATZ. This enables the pilot to determine if it is safe to proceed with the flight as planned and to intelligently position the aircraft in relation to other aircraft in the circuit pattern. FISOs are not to instruct pilots to join the circuit at a particular position. Furthermore, FISOs may not allocate a landing order, e.g. ‘Report final number 3’. The pilot must be told that there are two aircraft ahead in the circuit and it is up to the pilot to position himself accordingly.’

The FISO advised the pilot of the C182 that there were two fixed wing ac in the RH cct for RW07 and expected that the C182 pilot would position appropriately in the RH cct. Although the FISO subsequently misstated the cct direction as left-hand, the C182 pilot had already positioned on L base at that time so it is unlikely that this contributed to the Airprox. The Airprox occurred on final approach to Blackbushe, within the ATZ, when the pilots of both ac established on final at the same time from opposite base-legs, 900ft apart. The pilot of the C182 was advised by the Blackbushe FISO that there were two fixed wing ac in the RH cct. The pilot of the C182 did not conform to the established traffic pattern and positioned on L base.

As both ac were in Class G airspace, the pilots of both ac were ultimately responsible for collision avoidance. The pilot of the PA28 was concerned about the position of the C182 and took action to avoid it. The pilot of the C182 was unaware of the presence of the PA28 until the Airprox had occurred.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequency, radar video recordings, a report from the FISO involved and a report from the appropriate ATC authority.

When the C182 pilot called Blackbushe INFORMATION he asked for joining instructions; however, FISOs are not permitted to issue ‘instructions’ to pilots in the air and the FISO passed the essential information needed - that there were two fixed wing ac already in the cct and that RW07 was in use, with a right hand pattern. Nevertheless, the GA Member opined that the C182 pilot did not assimilate this from the FISO’s transmission, nor scan for and locate the ac reported to be in the cct, instead joining from the opposite direction contrary to the Rules of the Air. The Board discussed whether the FISO had ‘painted’ a correct and satisfactory picture of the cct for the C182 pilot and whether the FISO should have added that the two ac already established in the pattern were ‘ahead’ in the cct. Controller Members who also undertake FISO duties opined that the difference between offering sufficient succinct information to be helpful to the pilot and not making it sound like an instruction can sometimes be difficult. In these circumstances, it would have been reasonable for the FISO to add that the two ac in the cct were ahead of the C182. Nevertheless, Members concluded the information provided was sufficient and it should have been evident to the C182 pilot that he would be joining an established RH traffic pattern with 2 other ac already circuiting, which he had to acquire visually and fit in with appropriately.

Sound pre-flight planning should have acquainted the C182 pilot with the RW layout and cct directions that he might expect to encounter when he arrived at Blackbushe. Therefore, it was unclear to Members why he had joined on a L base-leg and turned onto final without sighting the other two ac beforehand unless this was a delaying manoeuvre to give him time to spot the two PA28s. Despite the C182's indicated altitude this was evidently not a conventional overhead join nor in conformity with the established RH cct pattern. The C182 pilot's written report had made reference to flying a straight-in approach to RW07 and giving way to traffic in the RH cct, attempting to look R into the downwind for them. It was evident from the RT transcript and the recorded radar data that he had indeed crossed the extended centre-line and positioned for a L base-leg outside the ATZ. Nevertheless, as he could not see the PA28s beforehand, he could have asked the FISO where the other ac were, which would have assisted him with his responsibility to fit in with the traffic already in the pattern.

The Board noted that it was after the C182 pilot reported "*joining on left base for 05*" at 1242:12, that the FISO reaffirmed the RW in use as RW07, but mistakenly advised the C182 pilot that it was "*..with a left hand circuit..*". The radar recording at this point shows the C182 already in a left-base position, well above the normal cct height. Therefore, the Board agreed that despite his error, the FISO's incorrect cct direction was not contributory to the Airprox. The Board was briefed that at this point the second PA28 was turning downwind with the subject PA28 on a R base-leg, 1.2nm directly ahead of the C182. The C182 pilot reports that the PA28 was not seen at all, perhaps because he was so high that the PA28 was obscured under the ac's nose making it increasingly more difficult to see as they flew closer together. A CAT pilot Member affirmed that the C182 pilot should have been searching for the two ac already in the cct before he attempted to join, whereas another Member suggested that he might have become confused between RW07 and RW25 which is a LH cct, and muddled this into an erroneous "*..05..*". It was suggested by a military pilot Member that the C182 pilot might not have spotted the PA28 because of the wide cct flown taking it just outside the ATZ boundary at the turn onto base-leg. However, at civilian A/Ds long downwind patterns are commonplace and it was only the student PF's 4th cct! Taking all these factors into account the Board concluded that this Airprox had resulted because the C182 pilot did not integrate into the established cct pattern and flew into conflict with the PA28, which he did not see.

Turning to the inherent Risk, it was evident that the FISO had spotted the C182 and advised the pilot about the PA28 ahead on final moments before the PA28 pilot himself spotted the other aeroplane above him. It was fortunate that the PA28 was a low-wing ac, which facilitated sighting the C182 above. Members then discussed the options available to the PA28 pilot after he spotted the C182 above him. His L turn into the deadside was contrary to the Rules of the Air, but the subsequent orbit ensured that his PA28 cleared away from beneath the C182 quickly and ensured that he did not turn into the second PA28 following as No2 in the pattern; in practice the No2 was unlikely to have caught him up at that stage if he flew the same wide pattern as that evinced by the radar recording. Nevertheless, the consensus amongst the Members was that an orbit on final was not ideal and a go-around at the cct height of 800ft QFE would have been preferable. Although he might have perceived the C182 was descending following its pilot's "*..turning finals*" call, the PA28 pilot's estimate of 300ft vertical separation was evidently less than it actually was at the time, given the significant height separation of 900ft unverified Mode C shown on the radar recording. The Board concluded therefore that the PA28 pilot's sighting of the C182 and subsequent avoiding action had forestalled a closer encounter and effectively removed any Risk of a collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The C182 pilot did not integrate into the established cct pattern and flew into conflict with the PA28, which he did not see.

Degree of Risk: C.