

AIRPROX REPORT No 2010152

Date/Time: 6 Oct 2010 1129Z

Position: 5302N 00029W (O/H RW26
Cranwell - elev 218ft)

Airspace: ATZ (Class: G)

Reporting Ac Reported Ac

Type: Tutor BE200

Operator: HQ AIR (TRG) HQ AIR (TRG)

Alt/FL: 300ft↑ 500ft
(QFE 996mb) (QFE)

Weather: VMC CLNC VMC NR

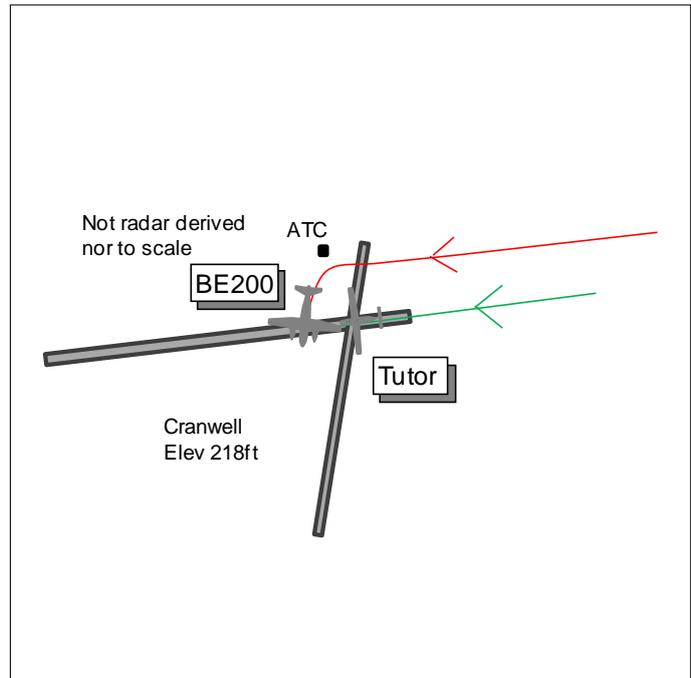
Visibility: 20km

Reported Separation:

200ft V/100ft H Not seen

Recorded Separation:

NR



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE TUTOR PILOT reports flying a local dual training sortie from Cranwell, VFR and in communication with Cranwell Tower on 125.05MHz; the transponder was switched off. Heading 264° at 80kt during the climbout from a touch and go, a BE200 King Air was noticed on the deadside of RW26 approximately 200ft above and 500m behind them. Once it was passing abeam, the King Air turned L but before it crossed in front of him the Tutor pilot levelled-off at 300ft QFE 996mb, which led to the King Air passing 100ft in front and 200ft above. He assessed the risk as medium.

THE BE200 PILOT reports conducting a dual advanced training sortie from Cranwell VFR and in communication with Cranwell Tower on 125.05MHz, squawking 2636 with Modes S and C. After joining the visual cct from a straight-in approach they were cleared for a low-level cct. They extended slightly upwind to position behind a Tutor downwind but as they turned downwind the Tutor pilot called for a flapless cct. They now realised that they might not have sufficient spacing behind the Tutor as it would be extending downwind. They continued to just over halfway around finals and, with the Tutor still approaching the threshold, elected to go-around at 500ft for another low-level cct. At this point another Tutor flight called joining downwind so he asked ATC to confirm the position of the joining Tutor and was told it was abeam Carlton Scroop mast, about 3-4nm W of Cranwell. To deconflict with the joining Tutor and the other Tutor last seen rolling about 1nm ahead, they elected to turn early downwind level at 500ft to complete the student's low-level cct before landing. Heading 265° at 140kt the turn was cleared visually to the L and commenced about 1000ft beyond the RW26 threshold; however, halfway around the turn they heard an Airprox called and they rolled out to check for traffic in case it was the joining Tutor in conflict with them. With nothing seen to conflict, the cct was continued to land. After landing and speaking to ATC he was told that it was the Tutor ahead of them on finals that had filed the Airprox and he later spoke to the Tutor pilot to discuss the incident.

THE CRANWELL TOWER CONTROLLER reports the visual cct was full (4 in) and the ATC Supervisor was present in the VCR. The Tutor was on the RW having been given "clear touch and go" and the BE200 was deadside low-level having just 'gone around'. Another Tutor was joining downwind having just called at 'the mast'. The BE200 broke early downwind and at this point the subject Tutor pilot called Airprox which he acknowledged. As he was concentrating on other aspects of the busy visual cct he was not aware of any incident until the Airprox call was made.

THE CRANWELL SUPERVISOR reports he was in the VCR owing to the cct being full. The BE200 had 'gone around' being unable to continue his approach and the Tutor had commenced a 'touch and go'. As the Tutor climbed away the BE200 was deadside O/H the VCR and its pilot called "breaking early low-level" as the BE200 crossed RW26 above the Tutor. He saw the Tutor initiate an immediate descent and once the BE200 had passed the Tutor recommenced a climb and its pilot called Airprox.

HQ 1GP BM SM reports that this Airprox occurred in the visual cct, with the unit operating on RW26, between BE200(A), operated by a QFI and student pilot, going-around from a low-level cct re-positioning from deadside to liveside and Tutor(A), operated by a QFI and student pilot, climbing from a "touch and go."

The ADC's workload was reported as high to medium, with the visual cct full, with dissimilar types (BE200 and Tutor) operating. At 1126:43, BE200(A) pilot reported downwind in the low-level cct (500ft QFE) for a touch and go. TWR responded that 2 ac were ahead, Tutor(A) and BE200(B), such that the order of recovery was BE200(B), Tutor(A) and BE200(A). Tutor(A) was flying a flapless circuit to touch and go, which meant that they would extend downwind, thereby reducing the distance on finals between Tutor(A) and BE200(A).

At 1127:30, Tutor(B) pilot called to join downwind and then at 1127:44 a third BE200 flight, BE200(C), called to join via initials. Due to the reduced spacing on finals between Tutor(A) and BE200(A) as a result of the flapless cct flown by the former, BE200(A) elected to go-around at 500ft at 1127:59. At 1128:10, Tutor(A) flight was cleared to touch and go.

At 1128:41, BE200(A) pilot asked TWR whether they "...have the position of the Tutor [Tutor(B)] joining downwind." There then followed an exchange between BE200(A) and Tutor(B) pilots about the latter's position. At 1128:56, in order to run-ahead of Tutor(B) and "complete the student's low level circuit before landing" BE200(A) crew announced their intention to "turn early downwind." The pilot of BE200(A) reports that that they had last seen Tutor(A) when it was "rolling around 1nm ahead" of them and cleared the L turn visually, before commencing this turn "about 1000ft beyond the 26 threshold." The ATC Supervisor reports that as "[Tutor(A)] climbed from the touch and go, [BE200(A)] was deadside overhead the tower and called 'breaking early low level.' As [BE200(A)] crossed RW26 above [Tutor(A)] I saw [Tutor(A)] initiate an immediate descent." The early turn downwind by BE200(A) is evident on the radar replay at 1129:18, although Tutor(A) is not visible on radar. At 1129:20, Tutor(A) pilot declared an Airprox.

JSP 552 310.110.2 states that Aerodrome control is established to deal with VFR traffic flying in the circuit and all movements on the manoeuvring area. Information and instructions will be given to pilots by the aerodrome controller to achieve a safe, orderly and expeditious flow of traffic and to assist pilots in preventing collision between...aircraft flying within the circuit area.

Given BE200(A)'s position in the circuit, it is reasonable to argue that the ADC could have expected BE200(A) to have been visual with Tutor(A) throughout the incident sequence. Consequently, the ADC could not have been expected to have given a warning to BE200(A) about Tutor(A) before the former turned downwind. Furthermore, whilst the Supervisor saw the occurrence, given the potentially short timescales involved, it would be unreasonable to expect him to have been able to pass the information onto the ADC, to provide a warning to BE200(A).

HQ AIR (TRG) comments that the BE200 pilot's statement that he had last seen the Tutor 'rolling 1nm ahead' indicates that he had lost sight of him at the time. The attempt to clear the turn visually was ineffective in that it did not pick up the Tutor. Knowing that the Tutor was in the vicinity, not seeing it should have led to a further question as to where it actually was. It is therefore possible that the crew had been distracted by the joining Tutor, Tutor(B), leading to them flying into conflict with Tutor(A). The pilot of Tutor(A) is to be commended for his awareness and prompt action in resolving the conflict.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

Members wondered why the BE200 crew appeared to have disregarded Tutor(A) as a factor when, having last seen it rolling on the RW ahead, they then positioned deadside at 500ft before turning crosswind early into the cct. The crew's SA had clearly broken down or they would have ensured they were visual and had adequate separation from the Tutor before turning L. The BE200 crew's attention appeared to have been focussed on completing the low-level cct and trying to establish the position and visually acquiring Tutor(B) joining the cct downwind. Tutor(A) was there to be seen, as it climbed away from its touch and go, and should have been detected and taken into account when the BE200 crew was clearing the flightpath into which they were intending to turn. This manoeuvre caused the Airprox. The ADC could not have known that the BE200 pilot had lost sight of Tutor(A) as the BE200 passed above the VCR on the deadside immediately prior to the CPA. Fortunately Tutor(A) pilot had seen the BE200 approaching from behind and above and took prompt action by levelling-off as it turned to pass just in front and 200ft above. Although Tutor(A) passed unsighted to the BE200 crew, the prompt action taken by Tutor(A) pilot was enough to persuade the Board that any risk of collision had been quickly and effectively removed.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The BE200 crew elected to turn downwind early and flew into conflict with Tutor(A), of which they had lost sight.

Degree of Risk: C.