

AIRPROX REPORT No 2012125

Date/Time: 16 Aug 2012 1212Z

Position: 5044N 00328W (2.25nm
WSW Exeter - elev 102ft)

Airspace: ATZ (Class: G)

Reporting Ac Reported Ac

Type: EMB175 EC145

Operator: CAT Civ Comm

Alt/FL: ↑ 500-600ft↓
QNH Rad Alt

Weather: VMC NR VMC CLBC

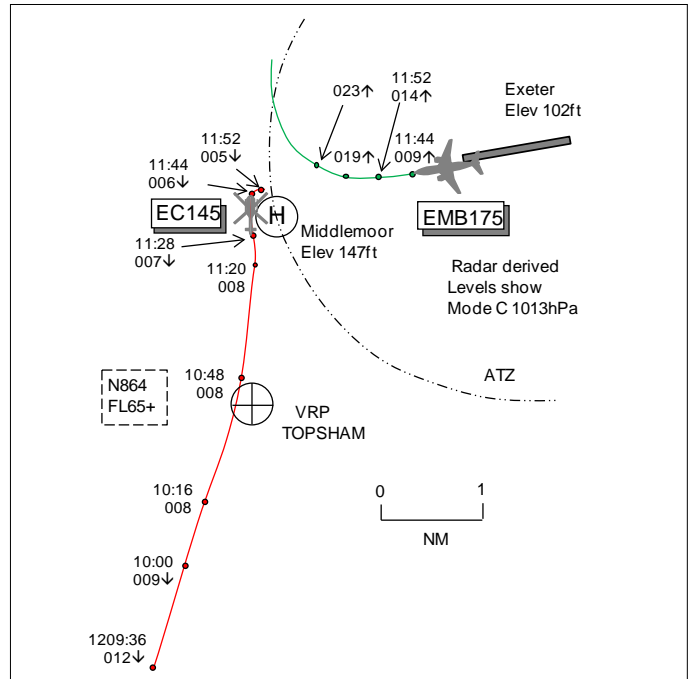
Visibility: NR >10km

Reported Separation:

700ft V/minimal HNR

Recorded Separation:

NR



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE EMB175 PILOT reports on departure from Exeter, IFR and in communication with Exeter Tower squawking with Modes S and C. They back-tracked RW26 and were advised by ATC that there was a light twin-engine ac carrying out a low approach and go-around. When ready for departure they were told the twin was entering a LH cct and take-off clearance was given. With the twin in sight and clear into the cct the take-off run was commenced. On rotation the PF noticed a helicopter routing through the extended C/L and informed the PNF. The PNF was initially not visual with the helicopter and scanned inside to ascertain its location and relative altitude difference from the TCAS display. TCAS showed the helicopter roughly at the same level approximately 1-2nm ahead. On becoming visual the PNF instructed the PF to continue climbing straight ahead. With cct traffic to their L and the helicopter marginally R of C/L and considering their climbout performance at 150kt, he deemed the safest option was to maintain their climb angle and climb through the helicopter's level. He knew they would be able to separate their ac above the helicopter with no risk of collision. TCAS generated a TA which was acknowledged by both pilots, the PNF noting that the display showed the helicopter to be 700ft below with minimal lateral separation. He, the Capt, elected to file an Airprox because a TCAS TA was issued on departure below 1500ft on an ac that the crew had not been informed about which was a very serious issue. Had the ac had any performance issues, for example an engine failure that would have reduced the climb performance, any separation could not be guaranteed. The event caused distraction to the crew throughout the early stages of the climb. During the latter stages of the climb it was agreed that the crew would not discuss or think about the event until after they had landed at destination to prevent further distraction or error.

THE EC145 PILOT reports returning to a private site approximately 2.5nm W of Exeter, VFR and in receipt of a BS from Exeter Tower, squawking a discrete code with Modes S and C; TCAS 1 was fitted. The visibility was >10km flying 1500ft below cloud in VMC. As they were positioning onto finals a flight was cleared for take-off from RW26 which was told of their helicopter manoeuvring at their location, he thought. As far as he could remember the departing ac's pilot acknowledged the take-off clearance and traffic warning. The other ac took-off and was seen at a distance whilst he turned onto heading 190° reducing through 115kt for landing. The departing ac climbed out behind them, estimating it passed 1000-1500ft above, and there was never any danger of collision.

THE EXETER TOWER CONTROLLER reports the EMB175 flight backtracking RW26 for departure was given TI about a light twin making a low approach and go-around. At this time there were other ac in the cct pattern and a helicopter transiting the ATZ E to W to the S of the aerodrome [not the EC145]. Further traffic was the EC145 returning from a task from the SW, approaching a landing site 2.5nm W of the aerodrome. The landing site is on the climbout of RW26. Both ac were in sight of the controller and the EC145 descended into the landing site as the EMB175 climbed out.

ATSI reports that the Airprox was reported by the pilot of an EMB175 against an EC145 in the Exeter ATZ, Class G airspace, notified as a circle 2.5nm radius centred on RW08/26 from SFC to 2000ft.

The EMB175 was operating IFR on departure from Exeter to Glasgow and was in receipt of an Aerodrome Control Service from Exeter Tower on frequency 119.8MHz.

The EC145 was operating VFR on a local flight from Middlemoor (which is situated on the western boundary of the Exeter ATZ) and was in receipt of a BS from Exeter Tower on frequency 119.8MHz.

CAA ATSI had access to written reports from the pilots of the EMB175 and the EC145 together with a report from the Exeter Tower controller, area radar recordings, RT recordings and transcripts of Exeter Tower frequency 119.8MHz and Exeter Radar 128.975MHz.

The Exeter METARs are provided for 1150 and 1220 UTC:

EGTE 161150Z 17014KT 9999 SCT020 18/16 Q1013= and EGTE 1220Z 17015KT 9999 SCT020 19/16 Q1013=

At 1153:20 the pilot of the EMB175 contacted Exeter Tower for push and start which was approved. At 1159:40 the EMB175 flight requested taxi instructions and was given taxi to holding point Charlie.

At 1203:20 the pilot of the EC145 contacted Exeter Radar 20nm to the SW at 1500ft on return to Middlemoor. A BS was agreed and the pilot of the EC145 was instructed to report with the city in sight.

At 1203:50 the Tower controller instructed the pilot of the EMB175, *“???? clears (EMB175 c/s) to Glasgow via Exmor November eight six four after departure right turn on track Exmoor climb flight level seven zero squawk five four three seven”*. The crew replied, *“Clear to Glasgow via Exmor climb flight level seven zero squawk five four three seven...”*.

At 1206:30 a training flight on final approach was given a go-around clearance to RW26 not below 500ft by the Tower controller.

At 1207:40 the Tower controller instructed the EMB175 to enter the RW via Charlie and to backtrack and line-up RW26. The pilot of the EMB175 was advised that a light twin would be making a missed approach to RW26 not below 500ft.

At 1208:00 the pilot of the EC145 reported visual with the city. The Exeter Radar controller gave TI to the EC145 on, *“...traffic about to depart runway two six or will be departing shortly two six for landing at Middlemoor contact Tower one one nine decimal eight”*. The EC145 pilot replied, *“To Tower one one nine decimal eight copy the traffic (EC145 c/s)”*.

At 1208:20 the pilot of the EC145 contacted Exeter Tower and advised that they were inbound to Middlemoor with about 5 to 6 miles to run. The Exeter Tower controller gave TI on the departing EMB175 as, *“...report final for Middlemoor the traffic backtracking runway two six for departure be routeing to the north and the left-hand circuit will be active”*. The EC145 pilot replied, *“Copy the traffic and we’ll call you finals for Middlemoor (EC145 c/s)”*.

At 1209:40 the Tower controller informed the pilot of the EMB175 that the light twin making a missed approach would be turning into the LH cct and at 1210:30 the EMB175 flight was cleared for take-off.

At 1211:10 the EC145 pilot reported turning final for Middlemoor. The Tower controller advised the pilot, “ *the traffic now just rolling runway two six surface wind at the airfield is one eight zero one five*”. At 1211:29 the EC145 was 2.8nm WSW of Exeter Airport.

[UKAB Note (1): The EMB175 first appears at 1211:44, 1.1nm W of Exeter climbing through FL009 with the EC145 in its 12 o'clock range 1.6nm in a R turn through 070° descending through FL006. Eight seconds later at 1211:52 the EMB175 was 1.4nm W of Exeter indicating FL014 ROC >3000fpm with the EC145 still in its 12 o'clock range 1.1nm turning through 090° indicating FL005. On the next radar sweep the EMB175 is seen climbing through FL019 commencing a R turn to the N, the EC145 having now faded from radar.]

At 1212:10 the pilot of the EMB175 was instructed to contact Exeter Radar on 128.975MHz.

[UKAB Note (2): At 1213:10 Exeter Radar called the EMB175 flight and the crew replied, reporting passing FL52 climbing to FL70. Exeter Radar informed the flight that they were identified but with no traffic to affect the climb to FL70 the service was terminated and to contact Cardiff.]

The pilot of the EMB175 replied, informing Exeter Radar (1213:40) that they had received a TCAS TA against a helicopter on departure.

[UKAB Note (3): Radar acknowledged the call before the EMB175 crew asked, “*Can you tell us how close we got to that*”. Radar replied, “*Er I didn't see the actual levels I'm afraid but er the helicopter when I saw it was at three hundred feet descending into land at this site*” which the crew acknowledged.]

The written report from the pilot of the EMB175 stated that on rotation the pilot flying noticed a helicopter routeing through the extended C/L. The TCAS displayed the ac at roughly the same level 1-2nm ahead. The TCAS provided a TA which showed the helicopter 700ft below. The crew were concerned about receiving a TA on unknown traffic on departure below 1500ft which caused distraction to the crew.

The written report from the pilot of the EC145 stated that the EMB175 took-off and climbed out behind the EC145.

The written report from the controller stated that both the EC145 and the EMB175 were in sight of the controller at the time of the reported Airprox.

Despite giving accurate and updated TI on the EMB175 to the pilot of the EC145, the Aerodrome Controller did not pass TI on the EC145 to the EMB175 crew. Although the controller had both ac in sight and could visually assess that there was no risk of collision, passing TI on the EC145 to the EMB175 would have improved the SA for the crew of the EMB175.

The Airprox was reported by the pilot of the EMB175 when the position of the EC145 caused distraction during the climbout from RW26 at Exeter.

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 video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

Members believed that had the Exeter ADC passed TI on the EC145 to the EMB175 crew this incident would almost certainly have not been filed. The EMB175 crew was distracted during their take-off, a critical stage of flight, when the EC145 was seen crossing ahead on the extended C/L of the RW. The EC145 pilot had been told about the departing EMB175, by Radar and again when

contacting the ADC, as he transited to and then let-down to the private site on the Exeter ATZ boundary. Although TI would have heightened the EMB175 crew's SA, the issuance was a judgement call by the controller as the ADC was not obliged to pass it whilst providing reduced separation in the vicinity of an aerodrome when both ac were continuously visible to the controller. That said, all controller Members at the meeting agreed that they would have passed TI in these circumstances. Given the circumstances, Members agreed that the cause of the Airprox was that in the absence of TI, the EMB175 crew was concerned by the presence of the EC145.

The radar recording shows the EMB175 with a high ROC already 300ft above the EC145 when over 1.5nm lateral separation pertained. The EC145 pilot had seen the departing EMB175 at range as the helicopter was manoeuvred onto a S'y track, into wind, for landing, estimating that it passed behind and well above with no risk of collision. The EMB175 crew had quickly assimilated the situation and continued their climb, judging their performance would remove the risk of collision. The Board concurred with both parties and, when these were combined with the ADC's application of reduced separation, was able to conclude that normal procedures, standards and parameters had pertained with any risk of collision effectively removed.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: In the absence of TI, the EMB175 crew was concerned by the presence of the EC145.

Degree of Risk: E.