

AIRPROX REPORT No 2010167

Date/Time: 3 Nov 2010 1716Z NIGHT

Position: 5117N 00034W (4nm S Fairoaks)

Airspace: LFIR (Class: G)

Reporting Ac Reporting Ac

Type: EC155B PA31

Operator: Civ Pte Civ Pte

Alt/FL: 1100ft 1200ft
(QNH 1013mb) (QNH)

Weather: VMC CLBC VMC CLBC

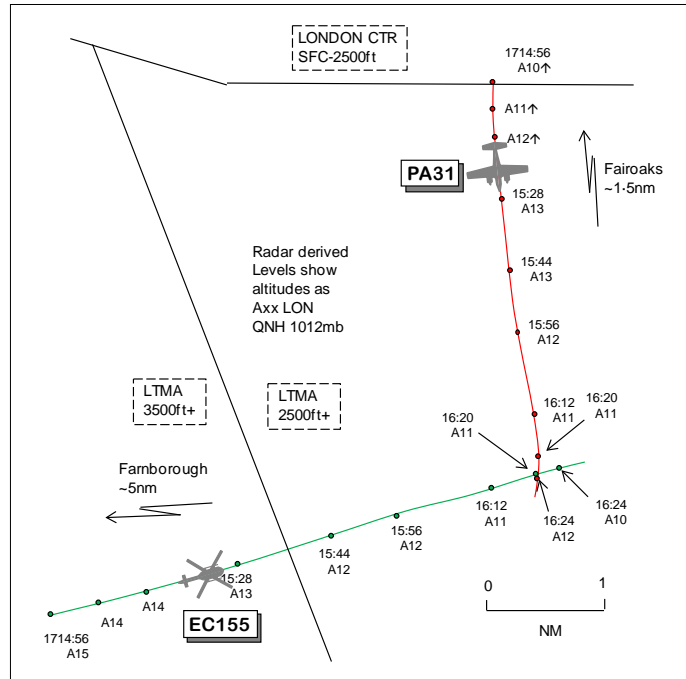
Visibility: >20nm 10km

Reported Separation:

<100ft V/close H 100ft V/200ft H

Recorded Separation:

<100ft V/<0.1nm H



BOTH PILOTS FILED

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE EC155B PILOT reports departing Farnborough en-route to London Heliport, IFR and in receipt of a BS from Farnborough Approach on 134.35MHz, squawking 0421 with Modes S and C; TCAS 1 was fitted. The visibility was >20nm flying 300ft below cloud in VMC and the ac was coloured silver with nav and anti-collision lights switched on. After departure the ac was levelled at 1300ft QNH 1013mb having climbed to and then descended from 2000ft to remain below cloud. The crew had pre-emptively downgraded to a BS from a TS knowing that they would be below the 1500ft limit for ATC to provide a TS in that area. Heading 070° at 155kt about 8-9nm on the 250R OCK Farnborough advised of traffic “your N” at “similar altitude”. ACAS showed a contact in their 11 o'clock range, 5nm moving erratically but ‘trending’ to pass behind their ac, indicating between the same altitude and 200ft above. Both crew members were aware that ACAS is not reliable in the horizontal plane, iaw the equipment manufacturers warnings for this unit, and treated this information cautiously; a TA was received at range 4nm. A transmission was heard from another flight joining the frequency on departure from Fairoaks with a similar c/s to theirs, its pilot reporting he was “visual with traffic on my R”. They did not have this traffic in sight and elected to maintain their course as they did not know its exact position and did not want to risk possibly increasing a conflict by turning when its position was not known. The co-pilot, PF, began a descent to 1000ft as he perceived that the other ac was climbing above them; both pilots were actively looking for the other ac. It was then spotted by them both simultaneously in their 1030 position very slightly above, <100ft, in what appeared to be a fairly steep RH turn before it passed down their LHS and then behind them. No manoeuvring was felt necessary as the other ac was already clearing down their LHS side when they saw it. Neither pilot felt they could accurately gauge the distance of its lights in the dark however, the co-pilot saw the outline of the other ac as well as its lights and both pilots were left with the impression that the ac had been ‘close’. Shortly afterwards the other ac’s pilot made a transmission reporting he had “...just missed that one”. On leaving the frequency 2min later the EC155B pilot informed Farnborough of his intention to file an Airprox; the pilot of the other ac acknowledged his call and asked the controller to “keep the tapes”. He made a final transmission that “...it’s not a blame thing, it’s a safety thing” which both Farnborough and the other pilot acknowledged. He assessed the risk as high.

THE PA31 PILOT reports outbound from Fairoaks to Alderney and establishing contact with Farnborough on 125.25MHz after leaving the Fairoaks frequency, squawking 0457 with Modes S and C. The visibility was 10km flying 200ft below cloud in VMC and the ac was coloured blue with 3 point HISLs and nav lights all switched on. About 3nm S of Fairoaks heading 190° at 150kt and level at 1200ft QNH he had been unable to call Farnborough owing to other traffic including the pilot of the other reporting ac being told about the position of his ac. He first saw the traffic in his 2 o'clock range 0.5nm at the same level; he then assessed that he was above it but he found it difficult to acquire and track the ac to assess its heading/direction. He took avoiding action by turning R and climbing, the helicopter passing 100ft below and 200ft clear on his LHS. The helicopter appeared to maintain a steady heading and its pilot was in contact with him during and after the conflict. He assessed the risk as low.

THE FARNBOROUGH APPROACH CONTROLLER reports working as an OJTI with a trainee on Approach and LARS W bandboxed. The EC155 departed Farnborough for London Heliport and was given a TS. The pilot requested own navigation to OCK, which was approved, before the pilot requested a downgrade to a BS as the flight descended below 1500ft, which was then provided. The PA31 became airborne from Fairoaks and at this time the EC155 was about 3nm to its SW tracking E'bound whilst the PA31 was tracking S. The trainee passed generic TI to the EC155 flight under the BS. As the PA31 pilot made his initial call, he instructed his trainee to call the traffic; however, the PA31 pilot called visual with the EC155 in his 1 o'clock before he was able to pass generic TI to him on the helicopter. As he was visual, the mentor told his trainee to issue the flight with a squawk, pressure and service. The PA31 pilot requested a TS but as it was maintaining 1100ft a BS was given. A couple of minutes later the EC155 pilot stated that he would be putting in some paperwork and also stated that it was not to apportion blame and that it was a 'safety thing'.

ATSI reports that the Airprox occurred at 1716:20, in Class G airspace, 4-6nm to the SW of OCK VOR, between a Eurocopter EC155B (EC155) and a Piper PA31 Navajo (PA31).

The EC155 was on a IFR flight from Farnborough to London Heliport and in receipt of a BS from Farnborough Approach Radar.

The PA31 was an IFR flight from Fairoaks to Alderney and was in the process of establishing contact with Farnborough LARS(W) as the Airprox occurred. The PA31 was displaying a squawk 0457, which is allocated to Fairoaks departures leaving the cct and intending to call Farnborough LARS.

The Farnborough controller was providing a combined Approach and LARS(W) service on frequencies 134.350MHz and 125.250MHz, with controller training in progress.

METAR EGLF 031650Z 22014KT 9999 BKN016 15/13 Q1013=

The EC155 departed from Farnborough with an allocated squawk 0421. At 1711:17, the pilot contacted Radar and reported, *"...(EC155)c/s following noise er then heading two two zero climbing altitude two thousand four hundred feet."* Radar instructed the EC155 pilot to squawk Ident and the EC155 pilot reported passing an altitude of 1100ft on QNH 1013. Radar then instructed the EC155 flight to resume own navigation OCK and asked the pilot to confirm the transponder was switched on. The pilot apologised and the transponder was switched on.

At 1713:20 Radar approved a request from the EC155 pilot for a descent to 1500ft and the pilot requested a TS outside CAS. At 1713:37, Radar advised, *"(EC155)c/s identified Traffic Service and it's descent to altitude one thousand five hundred feet taking your own terrain clearance."* The pilot responded, *"My terrain descend altitude one thousand five hundred feet (EC155)c/s"*.

Just over 1min later at 1714:56 the EC155 pilot advised, *"...we're happy to downgrade to a Basic Service and er operate not above one thousand five hundred feet."* Radar responded, *"(EC155)c/s roger radar service terminated Basic Service."*

At 1715:42 the PA31 flight made initial contact with Radar, *"Farnborough (PA31)c/s."* Radar responded by asking the PA31 pilot to standby. Radar then passed a warning to the EC155 flight regarding traffic in potential conflict, *"...(EC155)c/s there's er traffic north of you two miles southbound similar level."* The pilot replied, *"Looking (EC155)c/s."*

At 1715:56 Radar instructed the PA31 flight, *"...pass your full callsign and message."* The PA31 pilot replied, *"(PA31)c/s out of er Fairoaks a P A thirtyone Navajo maintaining not above one thousand one hundred this time and er requesting traffic squawking zero four five seven contact one aircraft my right one o'clock level."* Radar responded, *"(PA31)c/s roger squawk zero four three zero Q N H one zero one three."* The controller's written report indicated, that because the PA31 had reported visual with the EC155, no TI was considered necessary.

At 1716:20, the radar recording shows the 2 ac, 0.1nm apart, and converging. The EC155 was tracking ENE and the PA31 was tracking SSE. Both ac were indicating an altitude of 1100ft. The PA31 was in the EC155's 10 o'clock position, at a range of 0.1nm and crossing from L to R.

At this point the PA31 pilot replied *"Yeah just missed that one er er say again please for (PA31)c/s."* Radar repeated the message and the PA31 pilot acknowledged correctly, *"one zero one three er thanks er zero four three zero squawk for (PA31)c/s."*

[UKAB Note (1): The next radar sweep at 1716:24 shows the ac having passed. The PA31 is now tracking 190° indicating altitude 1200ft, having turned R 20° and climbed 100ft, in the EC155's 6 o'clock range 0.2nm, the EC155 now indicating altitude 1000ft, having descended 100ft. The CPA is estimated to be <100ft and <0.1nm.]

At 1717:10, Radar advised, *"(PA31)c/s it's a Basic Service only at your current level and say again your full callsign and destination."* The PA31 pilot confirmed the full c/s and destination.

At 1717:24, the EC155 pilot reported approaching OCK and advised of an intention to file a report.

The EC155 helicopter was in receipt of a BS. The PA31 flight called Farnborough Radar immediately prior to the Airprox and was instructed to standby whilst Radar passed a warning to the EC155 regarding an ac (the PA31) that was in close proximity. The Manual of Air Traffic Services Part 1, Section 1, Chapter 11, Page 4, Paragraph 3.1.1, states:

'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.'

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.

As this incident occurred in Class G airspace, there was equal responsibility on both crews to maintain their own separation from other ac through 'see and avoid'. Owing to the prevailing WX conditions, both crews elected to fly just below a uniform but low cloudbase in VMC. As it was night Members agreed that both crews would have found visual acquisition of each other's lights in the incident area difficult owing to the background lighting from the built-up areas and the 'blooming' effect from below the low cloudbase reflecting back the cultural lighting. The radar recording shows both ac approaching each other on a line of constant bearing, making both ac appear stationary in the windscreen and adding to the difficulty of seeing an ac that has no relative movement to trigger visual acquisition. The PA31 pilot became aware of the EC155B when he heard TI being passed on

his ac to the EC155B crew whilst he was awaiting Farnborough to call him back after he was told to 'standby' after his initial call on frequency. However, he only saw the helicopter at about 0.5nm, which Members agreed was a late sighting and a part cause of the Airprox. The EC155B crew were aware of the PA31 from TCAS and from the traffic warning given by Farnborough. However, they only saw it as it passed down their LHS, as it was taking avoiding action, effectively a non-sighting and the second part of the cause.

Under the Rules of the Air Regulations the EC155B had right-of-way. However, this always assumes that both pilots have seen each other and can discharge their responsibilities accordingly. In this Airprox the late sighting by the PA31 pilot and his stated difficulty in assessing the helicopter's flightpath resulted in late avoiding action and the ac passing closer than intended. This left the Board in no doubt that safety had been compromised.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively a non-sighting by the EC155B crew and a late sighting by the PA31 pilot.

Degree of Risk: B.