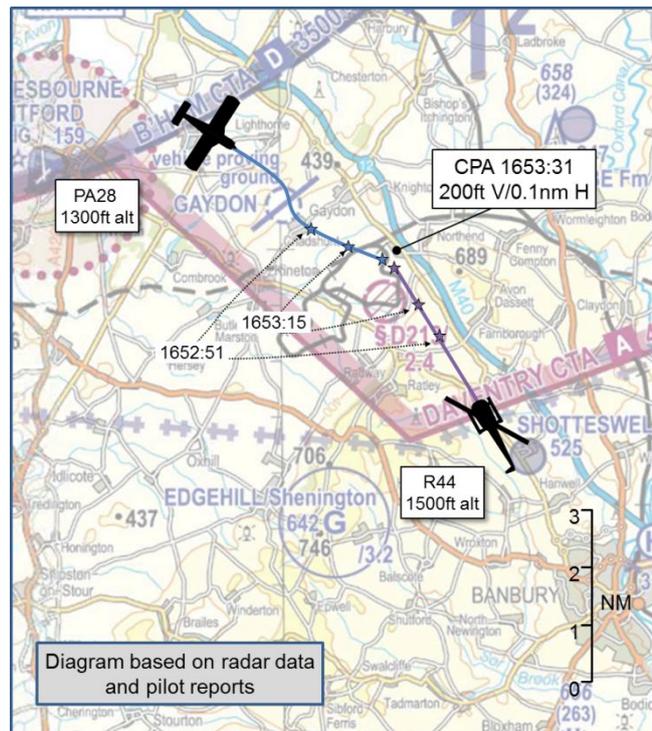


AIRPROX REPORT No 2014173Date/Time: 8 Aug 2014 1653ZPosition: 5210N 00127W
(IVO Gaydon)Airspace: London FIR (Class: G)Aircraft 1 Aircraft 2Type: R44 PA28Operator: Civ Pte Civ PteAlt/FL: 1500ft NK
QNH (NK)Conditions: VMC VMCVisibility: 10km NKReported Separation:

0ft V/50-100m H NK

Recorded Separation:

200ft V/0.1nm H

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

THE R44 PILOT reports flying a blue aircraft with all lights illuminated and SSR transponder Modes 3A and C selected. The aircraft was not fitted with TCAS. He was on his way to land at a private site and was receiving a Basic Service from Birmingham Approach. Birmingham advised of traffic in the Wellesbourne area and advised him to call Wellesbourne for further information. He did this, but the ATC was closed; however, another pilot advised that there were two aircraft operating in the area. The R44 pilot passed details about his own transit and then switched back to the Birmingham frequency. Within one minute of returning to the Birmingham frequency, he saw another aircraft in his 11 o'clock approximately 300m away, in the opposite direction and at the same height. Given the closing speed no avoiding action was possible, and the other aircraft did not seem to take any action either. The other aircraft passed 50-100m down his left-hand side. He opined that the change of frequency, as well as descending to go beneath airspace ahead whilst looking for his approaching landing site, all contributed to a high workload, which, although he had thought he was maintaining a good look-out for the reported traffic, may have contributed to the late sighting.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports flying in a red and yellow aircraft, with transponder Modes 3A and C selected. He did not report which lights were illuminated, and the aircraft was not fitted with a TCAS. He reported that he was very surprised to receive the news that he had been involved in an Airprox; although he recalled seeing a helicopter as he left Wellesbourne, neither he, nor his passengers, felt it was unduly close. As a consequence, he could not recall specific flight details but believed that he was probably swapping between Wellesbourne and Coventry frequencies at the time.

He assessed the risk of collision as 'None'.

Factual Background

The weather at Birmingham was reported as:

METAR EGBB 071650Z VRB03KT CAVOK 22/10 Q1014=

Analysis and Investigation

CAA ATSI

The written reports from both pilots were not received within 30 days and it was not therefore possible to obtain RTF recordings from the air traffic units concerned.

At 1649:13 radar recording showed the R44, 12.5nm southeast of Wellesbourne squawking 7000. Shortly afterwards the R44 changed squawk to 0401 (Birmingham Approach). The R44 pilot's written report indicated that whilst in receipt of a Basic Service from Birmingham Approach he was made aware of traffic in the Wellesbourne area and advised to contact Wellesbourne information. There was no response from Wellesbourne and another aircraft on the frequency advised the R44 pilot of about two aircraft in the vicinity.

At 1651:46 the R44 was 8.5nm southeast of Wellesbourne at 1800ft. The PA28 squawking 7000 begins to show on the radar recording 3.5nm east of Wellesbourne tracking southeast at 1200ft – Figure 1.

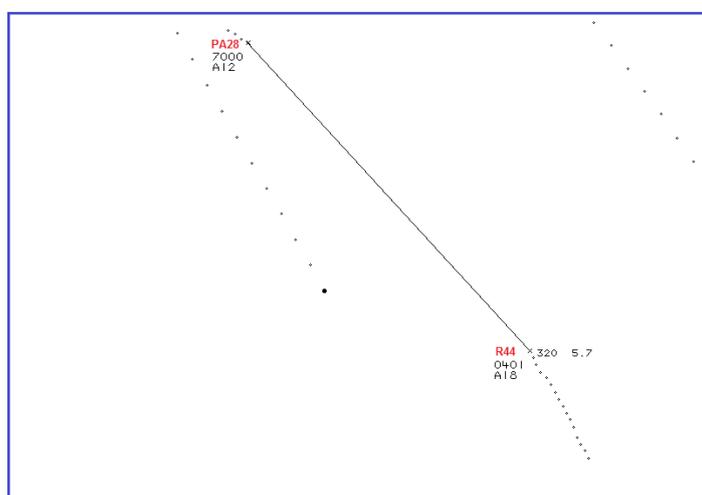


Figure 1 – Swanwick MRT at 1651:46

The two aircraft were on reciprocal tracks and continued to converge. At 1653:22 the horizontal distance between the two aircraft was 0.4nm and the vertical distance 300ft – Figure 2.

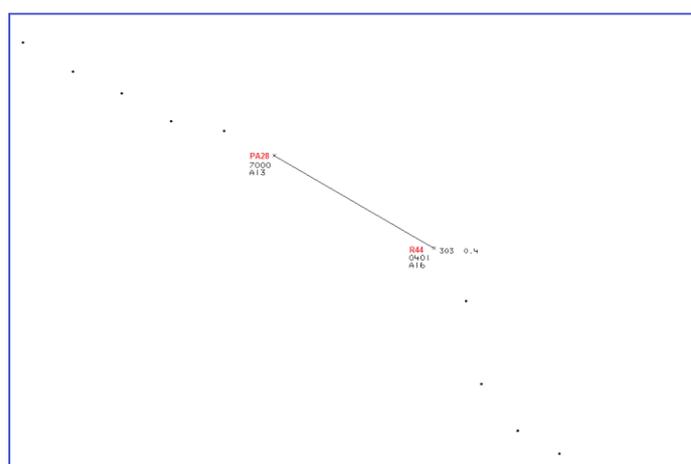


Figure 2 – Swanwick MRT at 1653:22

The R44 pilot recalled changing back to Birmingham Approach frequency and within a minute of doing so he sighted an aircraft in his 11 o'clock at a similar level and an estimated range of 300m. The R44 pilot indicated that there was not sufficient time to take avoiding action. At 1653:26 the horizontal distance between the two aircraft was 0.2nm. The R44 was descending and indicating 1500ft with the PA28 at 1300ft – Figure 3.

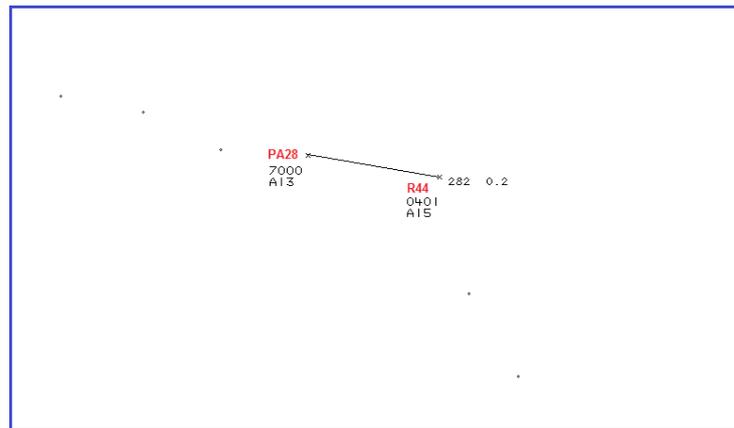


Figure 3 – Swanwick MRT at 1653:26

The next sweep of the radar [1653:30] showed the two aircraft had passed abeam and were diverging – Figure 4. It was estimated that at the CPA the horizontal distance was less than 0.1nm and the vertical distance was 150ft.

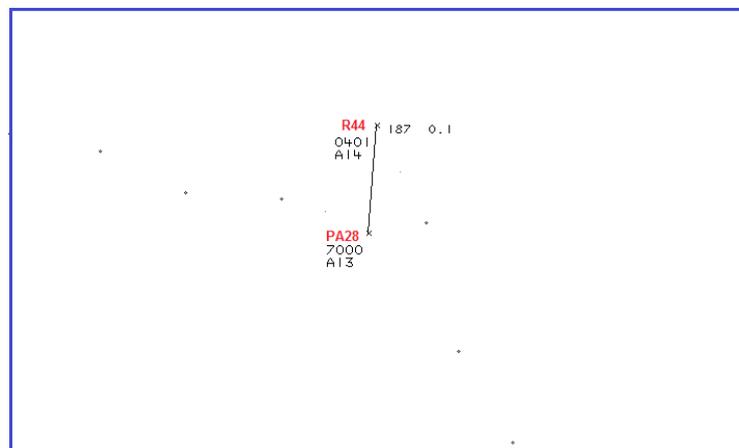


Figure 4 – Swanwick MRT at 1653:30

The R44 was in receipt of a Basic Service from Birmingham Approach where:

‘Pilots should not expect any form of traffic information from a controller, as there is no such obligation placed on the controller under a Basic Service, and the pilot remains responsible for collision avoidance at all times’¹.

The Birmingham controller passed general traffic information concerning activity in the vicinity of Wellesbourne Mountford and advised the R44 to contact Wellesbourne Information which resulted in the pilot becoming aware of two aircraft operating in the vicinity. The R44 returned to Birmingham Approach frequency just prior to the Airprox.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and for not flying into such proximity as to create a danger of collision². If the geometry was considered to be a ‘converging’ situation, the PA28 pilot was required to give way,³ if it was considered to be head-on then both pilots were required to alter course to the right.⁴

¹ CAP774, Chapter 2, Paragraph 2.5

² Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

³ *ibid.*, Rule 9 (Converging).

⁴ *ibid.*, Rule 10 (Approaching head-on)

Summary

An Airprox was reported on 8 August 2014 when a R44 and a PA28 flew into proximity at 1500ft; both aircraft were flying VFR in VMC. The R44 pilot was receiving a Basic Service from Birmingham, the PA28 pilot was not receiving an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board first looked at the actions of the R44 pilot. They praised him for his pro-active calls to Birmingham and then Wellesbourne in an attempt to obtain traffic information, and agreed that there was little more he could have done to alert others to his presence. It had simply been unfortunate that, despite his best efforts, the timing of the calls meant that the PA28 traffic was probably not on frequency at the time. Looking at his track, the Board wondered whether he was following the motorway geographical feature and, even if not, the Board opined that other aircraft might well have expected him to place his aircraft to its right if he was tracking along it for any significant distance.⁵ That said, the Board observed that the right-hand rule was notable more for its lack of adherence by pilots in general, and the UKAB Secretariat noted that, as of the 10th December 2014, the new rules under SERA⁶ removed the right-hand rule altogether.

Turning to the PA28 pilot, given the closeness of the encounter and the PA28 pilot's seeming lack of concern, the Board were not convinced that he had seen the Airprox R44 before the incident and had perhaps either seen a different helicopter or the R44 at a different time, and therefore had a different perception of the proximity.

More generally, the Board noted that the Birmingham controller was providing a Basic Service and so the responsibility for separation rested with the pilots; the Board opined that his decision to ask the R44 to call Wellesbourne was a sound one, albeit unknown to him it had probably caused the R44 pilot to go head-in to change frequencies at the critical point. The Board also commented on the fact that reports from the pilots were not received within 30 days of the incident, and therefore RT transcripts were not available; the Board wished to highlight to the aviation community the importance of early reporting of incidents so that all the available information could be saved for analysis – the RT transcripts would likely have provided useful granularity to the Airprox investigation.

In deciding the cause, the Board noted that the R44 pilot had reported that it was too late for him to take avoiding action and therefore this was effectively a non-sighting by the R44 pilot and probably a non-sighting by the PA28. Taking into account the separation shown on the radar recording, the Board judged the risk to be Category A, stopping just short of an actual collision and where chance had played a major part.

PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause:</u>	Effectively a non-sighting by the R44 pilot and probably a non-sighting by the PA28 pilot.
<u>Degree of Risk:</u>	A.
<u>ERC Score⁷:</u>	100.

⁵ Ibid., Rule 16 (Right-hand Rule)

⁶ SERA – Standardised European Rules of the Air.

⁷ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.