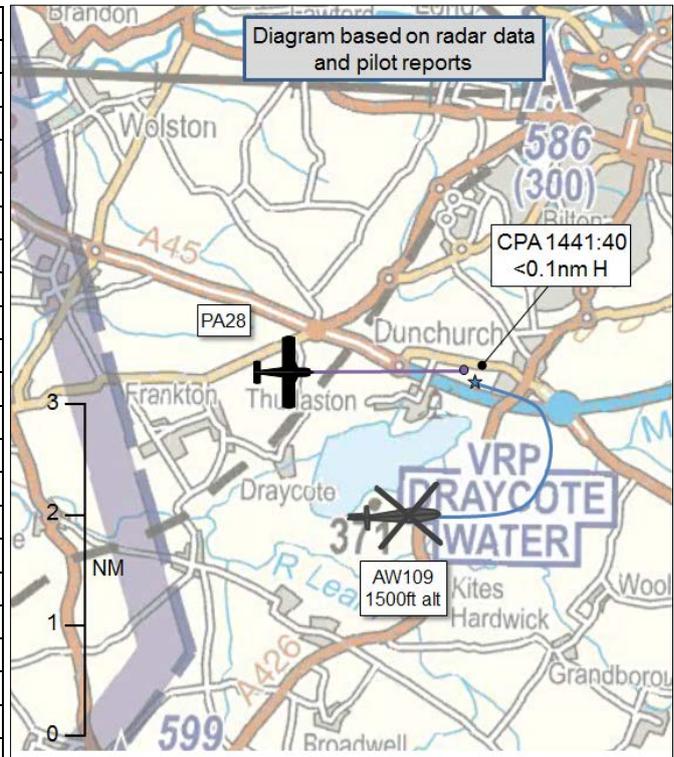


AIRPROX REPORT No 2017197

Date: 18 Aug 2017 Time: 1441Z Position: 5220N 00118W Location: Draycote Water

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------|---------------|------------------|
| Aircraft | AW109 | PA28 |
| Operator | HEMS | Civ Trg |
| Airspace | London FIR | London FIR |
| Class | G | G |
| Rules | VFR | VFR |
| Service | Listening Out | Listening Out |
| Provider | Coventry | Coventry |
| Altitude/FL | 1500ft | NK |
| Transponder | A, C, S | A, C, S |
| Reported | | |
| Colours | Yellow | White, Blue, Red |
| Lighting | Strobe, Nav | Strobe, Landing |
| Conditions | VMC | VMC |
| Visibility | >10km | >10km |
| Altitude/FL | 1500ft | 1500ft |
| Altimeter | QNH (1009hPa) | QNH |
| Heading | 300° | 140° |
| Speed | 140kt | 90kt |
| ACAS/TAS | TCAS I | Not fitted |
| Alert | None | N/A |
| Separation | | |
| Reported | 200ft V/50m H | Not seen |
| Recorded | <0.1nm H | |



THE AW109 PILOT reports that he was on a HEMS call, heading 120°, but was subsequently stood down, so carried out a left turn onto a heading of 300° to route back to Coventry. Approx. 1 min later, he saw the white-and-red PA28 in the opposite direction at about 1/4nm away. He initiated a descent, but it made little significant difference because of the late sighting, and the PA28 passed above and to the right. He had heard a call from the Coventry radio about 3 mins before the sighting reporting traffic outbound to the SE. After the incident, he reported to Coventry radio his intention to report an Airprox, but the other pilot didn't respond on the frequency. Later, he spoke to a PA28 pilot at Coventry, whose aircraft matched the one they saw, but the PA28 pilot had not seen the incident and therefore didn't think he was involved.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports there he had some doubts as to whether he was flying the aircraft involved in this Airprox, although the AW109 pilot seemed to think he was. His recollection was that, on departure, he was advised by Coventry about the Air Ambulance in the area, and had visual contact with him in his 11 o'clock and 1.5nm away. The helicopter continued on a southerly heading and out of sight. A minute or so later, he heard the Air Ambulance pilot advise that his 'mission' was cancelled and he would be RTB. Shortly after that he heard him report that he had a close call with an aircraft and would be reporting an Airprox. At no time after the initial sighting did he see the Air Ambulance again, perhaps because the helicopter was low-level and he was in a low-wing aircraft with significant blind spots below. He believed he wasn't yet at Draycote water when the AW109 pilot reported the Airprox which was why he thought it might not be his aircraft involved.

Factual Background

The weather at Birmingham was recorded as follows:

EGBB 181450Z 27010KT 9999 SCT032TCU 17/08 Q1008

Analysis and Investigation

CAA ATSI

The PA28 departed Coventry to the east at approximately 1436. It was not possible to positively identify the aircraft on radar despite the pilot reporting that they were transponding code 4360 because no such squawk was observed. The AW109 contacted Coventry Radio at 1437:00 advising that they were departing to the south east. At 1437:04 the Air/Ground operator passed Traffic Information to the AW109 on an aircraft joining downwind left-hand from the southwest, and on the PA28 departing to the south east. The Air/Ground operator then passed Traffic Information to the PA28 on the AW109. At 1440:00, both the AW109 and a contact believed to be the PA28 were observed on the radar replay (Figure 1).

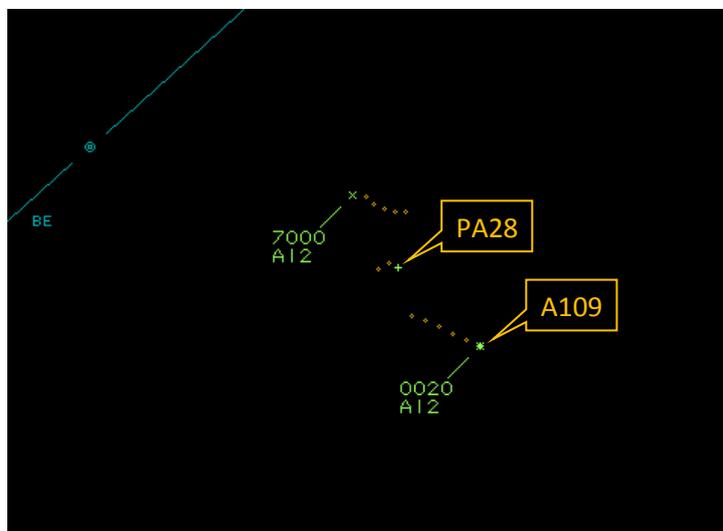


Figure 1 – 1440:00

At 1440:40 the AW109 pilot reported at Draycote, rejoining for RW23. The Air/Ground operator passed the QNH and mentioned the PA28 outbound to the southeast, which was acknowledged by the AW109 pilot (Figure 2).

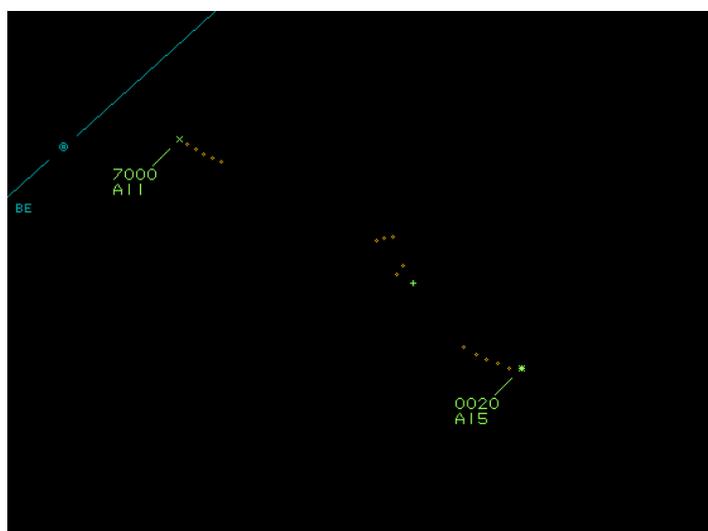


Figure 2 – 1440:40

CPA took place at 1441:38, with the aircraft separated by <0.1nm laterally (Figure 3).

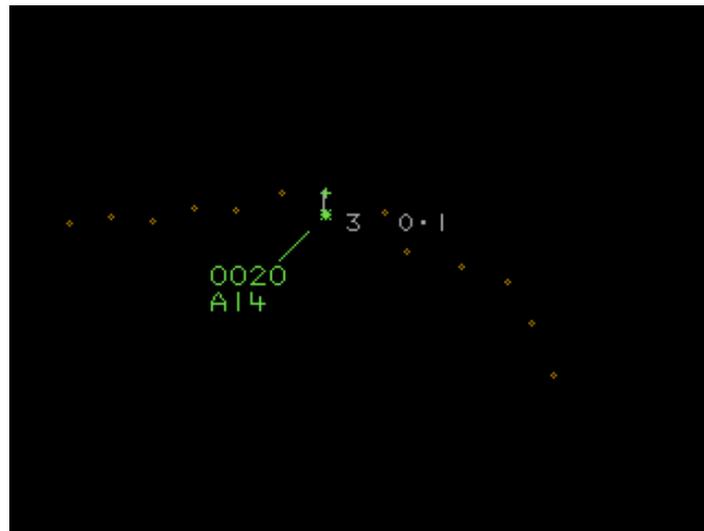


Figure 3 – 1441:38

The AW109 pilot reported the Airprox to Coventry Radio at 1442:00.

The level of Traffic Information being passed by Coventry Radio to all aircraft in communications with them was considered to be excellent by ATSI, exceeding that which is normally required at such a unit. Notwithstanding, because both aircraft were operating in Class G airspace the pilots were responsible for their own collision avoidance.

UKAB Secretariat

The AW109 and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right².

Summary

An Airprox was reported when an AW109 and a PA28 flew into proximity at 1441 on Friday 18th August 2017. Both pilots were operating under VFR in VMC, neither were in receipt of an ATS, although both were listening out on Coventry Radio and received Traffic Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings, and reports from the appropriate ATC operating authorities.

The Board first looked at the actions of the AW109 pilot. He had had his mission cancelled and, after announcing on the RT that he was returning, he turned around to return to base. He had noted from the Air/Ground operator's transmission that there was a PA28 out-bound to the southeast, but after completing his 180° turn came into close proximity with it as he routed back to the airfield from the southeast. Noting that Coventry had only recently changed from radar equipped ATC to non-radar Air/Ground Operators (who would not have been able to give accurate Traffic Information); the Board wondered why the AW109 pilot had not called on frequency to ask the other pilot for his position and routing. Having received situational awareness about traffic in his vicinity, they thought it was a missed opportunity not use it. Likewise, the Board also thought that the PA28 pilot was as incurious;

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

he had heard the AW109 pilot report that he was turning around and was in his vicinity, and members felt that he could have announced his position/altitude, or asked the AW109 pilot for his. The Board briefly discussed the potential role of the VRP in the incident, noting that both inbound and outbound traffic was using the same VRP. Some members wondered whether a more definitive AIP entry might be of value in stating that inbound and outbound traffic should route one to the north of Draycote water and one to the south. However, noting that Coventry had undergone a period of transition recently during which AIP entries were no doubt under review already, they stopped short of making a recommendation.

Members noted that the AW109 was equipped with a CWS but, because the PA28 was not transponding, it would not have alerted, thus removing electronic conspicuity as a barrier against mid-air collision. The Board noted that the PA28 pilot had reported that his transponder was on, but its lack of display on the radar replay indicated that either this was a mistaken recollection or that the transponder was faulty. The Board wished to highlight to pilots that, as of 12th October 2017 (after the date of this incident) SERA mandates that when an aircraft carries a serviceable transponder the pilot shall operate the transponder at all times and with all available modes selected regardless of whether the aircraft is within or outside airspace where SSR is used for ATS purposes.³

Turning to the cause and risk, members commented that without CWS or an ATS, look-out remained the final barrier. Although the PA28 pilot had not seen the AW109 at all, luckily the AW109 pilot managed to see the PA28 in time to take some avoiding action, albeit that he thought it had made little material difference. As a result, the Board quickly agreed that this had been a late sighting by the AW109 pilot, and a non-sighting by the PA28 pilot. As for the risk, the Board returned to the AW109 pilot's comment that his manoeuvre had probably made little difference in materially increasing separation. As a result, the risk was assessed as Category B; safety had been much reduced below the norm.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the AW109 pilot and a non-sighting by the PA28 pilot.

Degree of Risk: B.

Safety Barrier Assessment⁴

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

ANSP:

Situational Awareness and Action were assessed as **fully effective** because the Coventry Air/Ground Operator passed timely Traffic Information, even though he wasn't required to.

Flight Crew:

Situational Awareness and Action was assessed as **partially effective** because although both pilots had an awareness that the other was in the vicinity, neither acted to get further details of the others position and route.

Warning System Operation and Compliance were assessed as **ineffective**; although the AW109 was fitted with TCAS, the PA28 wasn't transponding, thereby rendering TCAS ineffective.

³ SERA 13001, 13005, 13010 and 13015 - SSR Transponder

⁴ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

See and Avoid were assessed as **partially effective**, the AW109 pilot was able to take avoiding action, albeit at a late stage.

