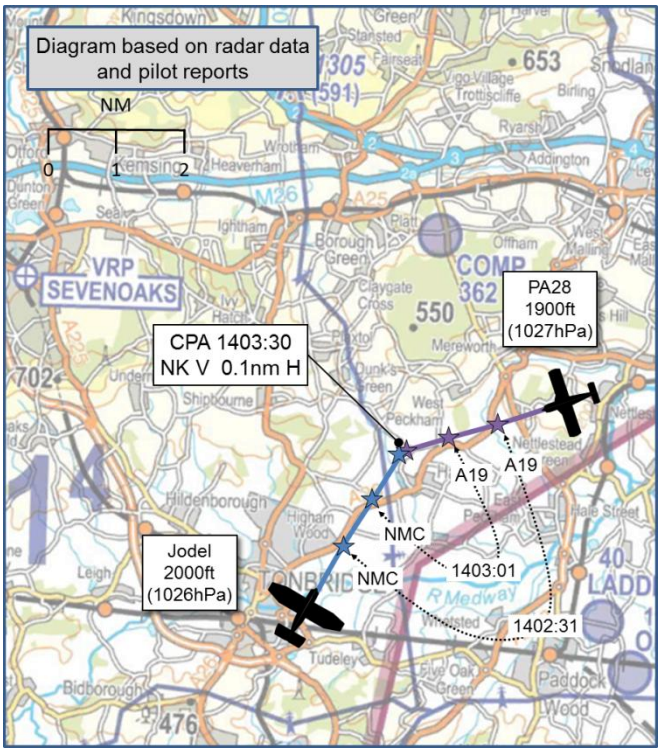
AIRPROX REPORT No 2014184

Date/Time: 27 Sep 2014 1403Z (Saturday)

Position: 5114N 00020W (3.6nm SE of Sevenoaks VRP)

Airspace: London FIR (*Class*: G)

	Aircraft 1	*Aircraft 2*
Type:	Jodel DR1050	PA28
Operator:	Civ Pte	Civ Club
Alt/FL:	2000ft QNH (1026hPa)	1900ft QNH (1027hPa)
Conditions:	VMC	VMC
Visibility:	>10nm	>10km
Reported Separation:	50ft V/0m H	NK V/NK H
Recorded Separation:	NK V/0.1nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE JODEL PILOT reports flying under VFR, 2000ft below cloud in hazy weather, without lights but squawking transponder Modes 3/A and S, with Mode C turned off, and 'listening to Farnborough' on 125.25mHz. He was cruising straight-and-level at 2000ft, on a course of 026° from MAY. The other aircraft 'seemed to suddenly appear out of the haze ahead on a direct collision course'. The Jodel pilot estimated that the other aircraft was heading around 175° and was slightly above him; he turned to the right and dived his aircraft and then looked back but could not see any apparent avoiding action from the other aircraft.

He assessed the risk of collision as 'Medium'.

THE PA28 PILOT reports operating a white aircraft, with a student as PF[1], under VFR, into sun, with white wingtip strobes, red tail beacon and the landing light illuminated, and squawking transponder Modes 3/A and C. They intended to fly the aircraft straight and level at 2000ft (QNH 1027hPa), heading 300° at 90kt towards the Sevenoaks VRP[2]; however this was only the student's 'second lesson of straight and level', and the instructor recalls that their altitude varied between 1900ft and 2000ft. Although he was 'maintaining lookout' and a 'listening watch' on the Biggin Hill Approach frequency, the instructor did not see any aircraft during the transit back to Biggin Hill. They were aware that the Biggin Hill visual circuit was busy, and planned to request joining instructions as they approached the VRP at Sevenoaks; they contacted Biggin Approach and received Traffic Information on aircraft departing the airfield and heading towards the VRP, and two aircraft, which were inbound to Biggin from the Swanley area. The instructor recalls being given the 'standard rejoin procedure', which meant joining from the east and reporting 3DME from the Biggin VOR, so they selected the VOR frequency. After reporting 3DME, they were given further clearance to report downwind and reminded that there were two aircraft ahead. They commenced their descent to circuit height (1000ft QFE 1007hPa) just northwest of Sevenoaks. The instructor recalls maintaining a good look-out at all times, and identified both of the aircraft ahead as they reached the circuit. Just as the PA28 reached overhead the threshold of RW29, they saw another aircraft climbing after takeoff. The PA28 continued in the circuit and they landed after the preceding 2 aircraft. At no time were the PA28 crew aware of an aircraft 'near' them and so did not assess the risk of collision.

[1] Pilot Flying
[2] Visual Reporting Point

Factual Background

The Biggin Hill weather at 1350 was recorded as:

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METAR EGKB 271350Z 20003KT 9999 SCT030 BKN040 20/12 Q1026
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Analysis and Investigation

CAA ATSI

Whilst the DR10 pilot reported listening out on the LARS(W) frequency, he was operating in an area covered by LARS(E). Farnborough reported that the DR10 was not in communication with Farnborough (LARS) and they were unaware of an Airprox.

The PA28 was in receipt of a Basic Service from Biggin Approach. Biggin reported that they had no knowledge of an Airprox and considered that the controller on duty would have reported any incident. The controller has since left the unit and they were therefore unable to provide additional information.

The PA28 pilot was displaying SSR code 7047 (Biggin Hill conspicuity) operating between 1900ft and 2000ft prior to joining a busy circuit. At 1405:00 (after the Airprox) the PA28 pilot called for rejoin, and Biggin Approach passed him Traffic Information on two other inbound aircraft, and instructed the pilot to report at 3nm for RW21 right-hand circuit, with QNH 1027hPa set.

The DR10 was identified 12.5nm southeast of Biggin Hill tracking northeast, without Mode C level reporting. At 1402:39 the horizontal distance between the two aircraft was 2.5nm – Figure 1.

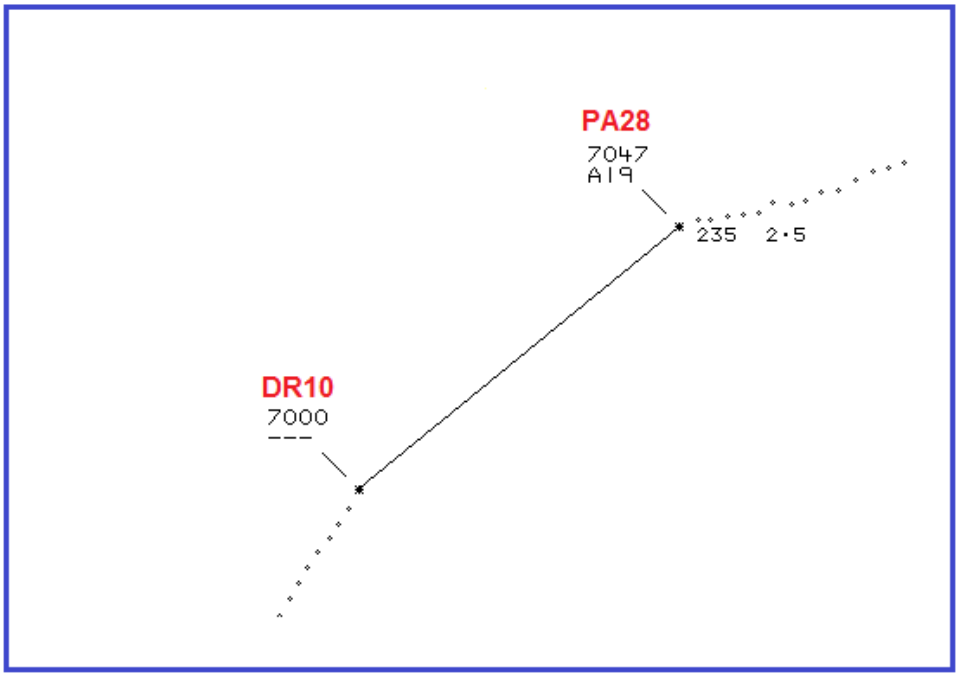

Figure 1 – Swanwick MRT at 1402:39 (Jodel DR1050=DR10)

At 1403:13 the distance between the two aircraft was 1nm – Figure 2.

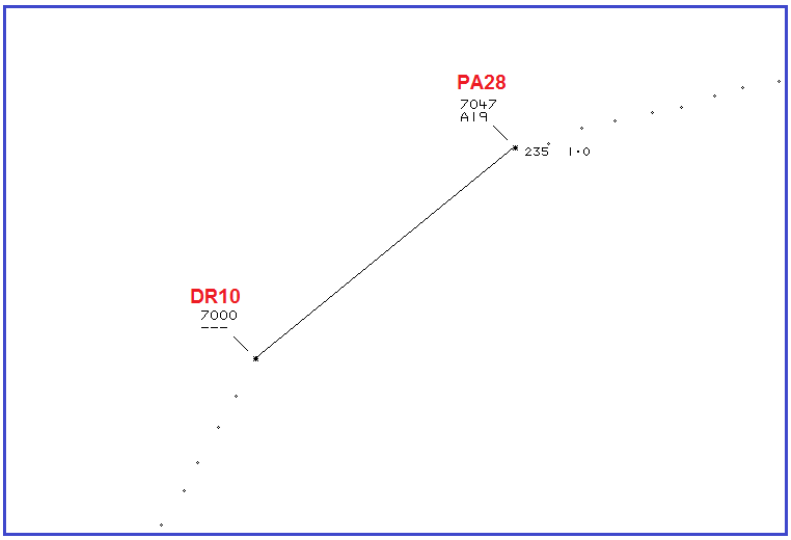

Figure 2 – Swanwick MRT at 1403:13

At 1403:27 the distance between the two aircraft was 0.1nm – Figure 3.

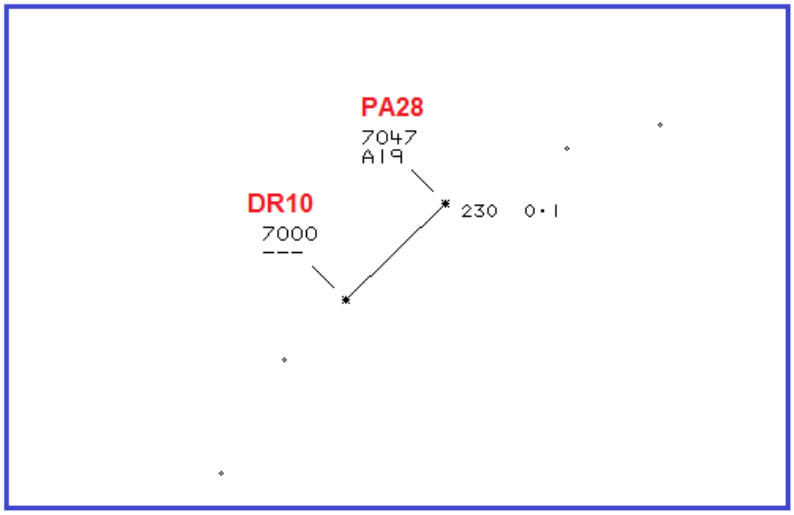

Figure 3 – Swanwick MRT at 1403:27

The next sweep of the radar at 1403:31 showed that the two aircraft had passed abeam. The CPA was estimated to have occurred between radar sweeps at 1403:29 at a range of less than 0.1nm – Figure 4.

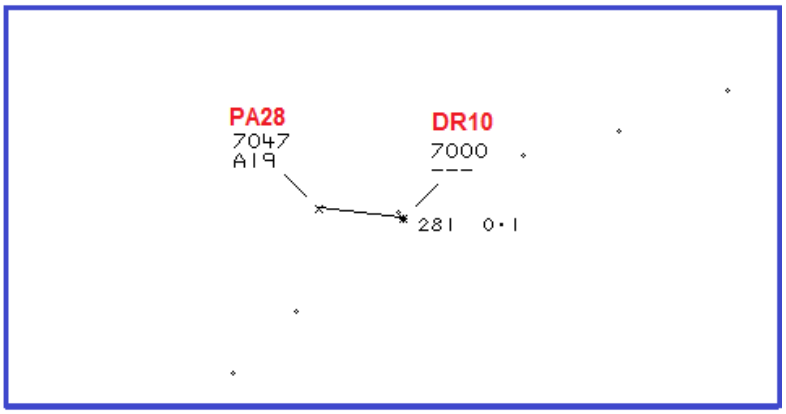

Figure 4 – Swanwick MRT at 1403:31

UKAB Secretariat

Both pilots had equal responsibility for avoiding collisions and for ensuring that do not fly in such proximity to other aircraft as to create a danger of collision.[3] The aircraft were converging, and the PA28 was on the right of the DR10, so the DR10 pilot was required to give way[4]; however, he did not see the PA28 until very late and then took avoiding action. The PA28 pilot did not see or avoid the DR10.

Summary

An Airprox was reported 3.6nm southeast of Sevenoaks VRP, in Class G airspace, between a Jodel and a PA28. The Jodel pilot was not in receipt of an Air Traffic Service; the PA28 pilot was in receipt of a Basic Service from Biggin Hill and did not receive any Traffic Information. The PA28 pilot did not see the Jodel, and the Jodel pilot saw the PA28 very late but was able to take avoiding action by diving his aircraft to the right.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board noted that the Jodel pilot had turned his transponder Mode C off, and reiterated that, unless the Mode C is faulty, it is best practice to fly with it turned on because it enables the TCAS systems in other aircraft to operate and allows ATC more flexibility when controlling other aircraft nearby. Notwithstanding, in this case, the Mode C would not have had any positive effect because the PA28 was not TCAS equipped. The Jodel pilot reported 'listening' to the Farnborough frequency and members agreed that, whilst establishing 2-way communication and agreeing an Air Traffic Service (even if only a Basic Service) would be far more useful, listening out on a frequency can often provide information to enhance a pilot's situational awareness. However, in this case, the Jodel pilot was listening out on the incorrect frequency for the area he was flying in, meaning that he would not have heard very much of use to him. The Board agreed that he would have been better placed to either have contacted Farnborough LARS on the correct frequency, or made contact with Biggin Hill.

Turning to the actions of the PA28 crew, whilst acknowledging that the demands on the instructor would have been high during an early stage of the student's training, the Board agreed that the instructor shared the responsibility for avoiding collisions with the Jodel pilot; however he had not seen the other aircraft, and so could not have taken any action. The Board quickly agreed that this was a straightforward late sighting by the Jodel pilot and a non-sighting by the PA28 pilot. The Jodel pilot had taken action to effectively avoid a collision, albeit at a very late stage due to the late sighting, so the Board agreed that the Degree of Risk was Category B.

[UKAB Note 1: After the Airprox had been reviewed by the Board, the pilot of the Jodel added the following points to his report:

1. He believed that the aircraft's Mode C was being transmitted inaccurately and so turned it off.

2. He intended to contact Southend ATC and decided to maintain a listening watch with Farnborough LARS (W) frequency until he was within range of Southend's frequency.]

[3] Rules of the Air 2007, Rule 8, Avoiding Aerial Collisions
[4] Rules of the Air 2007, Rule 9, Converging

PART C: ASSESSMENT OF CAUSE AND RISK

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

Degree of Risk: B.

ERC Score[5]: 20.

[5] 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.