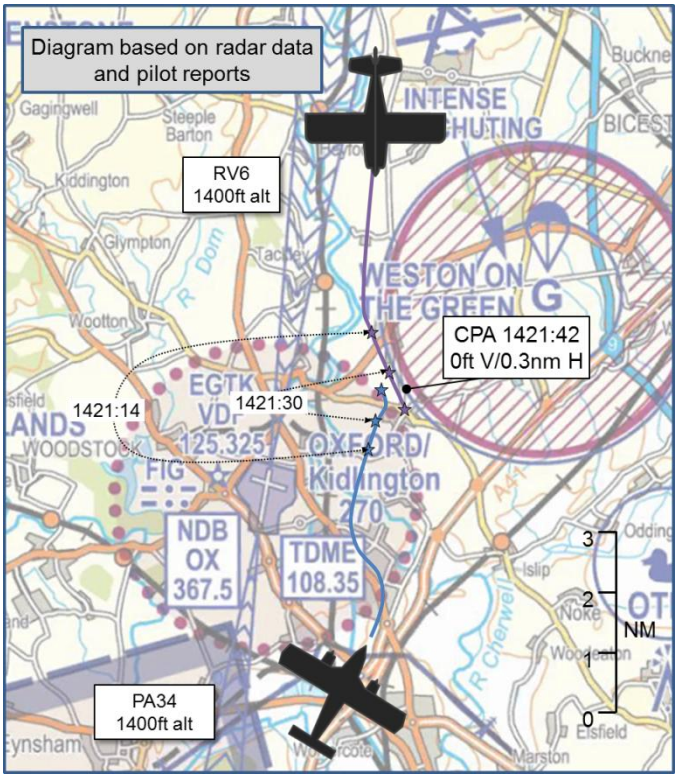
AIRPROX REPORT No 2014065

Date/Time: 16 May 2014 1420Z

Position: 5151N 00011W (IVO Oxford Kidlington)

Airspace: Oxford ATZ (*Class*: G)

	Aircraft 1	*Aircraft 2*
Type:	PA34	RV6
Operator:	Civ Trg	Civ Pte
Alt/FL:	1500ft QNH (1031hPa)	1400ft
Conditions:	VMC	VMC
Visibility:	>10K	>10k
Reported Separation:	0ft V/300ft H	NK
Recorded Separation:	0ft V/0.3nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

CONTROLLER REPORTED

THE OXFORD RADAR CONTROLLER reports that he was about to take over the radar position when he heard the controller making blind broadcasts on the Oxford frequencies to unknown traffic flying down the approach path indicating A014 and squawking 7000. The unknown traffic then altered course to transit the gap between the ATZ and D129 Weston-on-the-Green, which put it head-to-head with traffic downwind in the RW19 circuit. The Tower controller was informed, and he passed traffic information to the pilot in the circuit, who subsequently descended and turned to avoid. The returns merged on the radar, indicating the same level and the unknown traffic continued towards Benson. He asked Benson to track the aircraft and it subsequently called them inbound to a local airfield. The controller reported that aircraft were frequently seen "shooting the gap".

THE PA34 PILOT reports flying a white and blue aircraft with all lights illuminated and transponder modes 3A, C and S selected. TCAS was not fitted. He was flying at 1500ft downwind in the visual circuit at Oxford when he saw a white, low-wing aircraft transiting in the opposite direction on a constant bearing and closing. He turned left and it passed 300ft away at the same level.

He assessed the risk of collision as 'High'.

THE RV6 PILOT reports flying a predominately white aircraft with transponder Mode 3A and C selected. He did not state which lights were illuminated. He was returning to his home airfield and was monitoring, but had not yet called, the Benson frequency in anticipation of calling for a MATZ crossing. He reported that he was skirting round the edge of the Hinton-in-the-Hedges parachute zone, which he believed would keep him clear of the Oxford ATZ. He didn't see the reporting aircraft and wasn't aware of the incident until he contacted Benson ATC and was asked to telephone Oxford. He reported that he was surprised that the aircraft in the circuit was outside the ATZ.

Factual Background

The weather at Brize Norton was recorded as:

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METAR EGVN 161350Z 09003KT 9999 FEW045 BKN060 21/09 Q1031 BLU NOSIG
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Analysis and Investigation

CAA ATSI

An Airprox was reported by the pilot of a Piper Seneca II (PA34) when it came into confliction with a Vans RV-6 just beyond the boundary of the Oxford ATZ. The Oxford ATZ is defined as a circle, 2nm radius, centred on the longest notified runway (01/19) up to 2000ft, Class G airspace.

The PA34 was operating VFR on a local training flight from Oxford and was in receipt of an Aerodrome Control Service from Oxford Tower.

At 1419:40 the Oxford radar controller had observed the RV6 north of Oxford, heading south and transmitted blind to try to establish contact. As the RV6 continued southbound the Oxford radar controller continued to transmit blind and, at 1420:10, the Radar controller initiated a telephone call to the Tower controller and called the Tower controller's attention to the RV6, stating that it was not talking to Radar. The Radar controller continued to try and establish contact with the RV6 by transmitting blind. At 1420:55 the PA34 reported downwind, and the Tower controller instructed the pilot to report final (Figure 1). The RV6 was 3.2nm north of the PA34, on a converging heading.

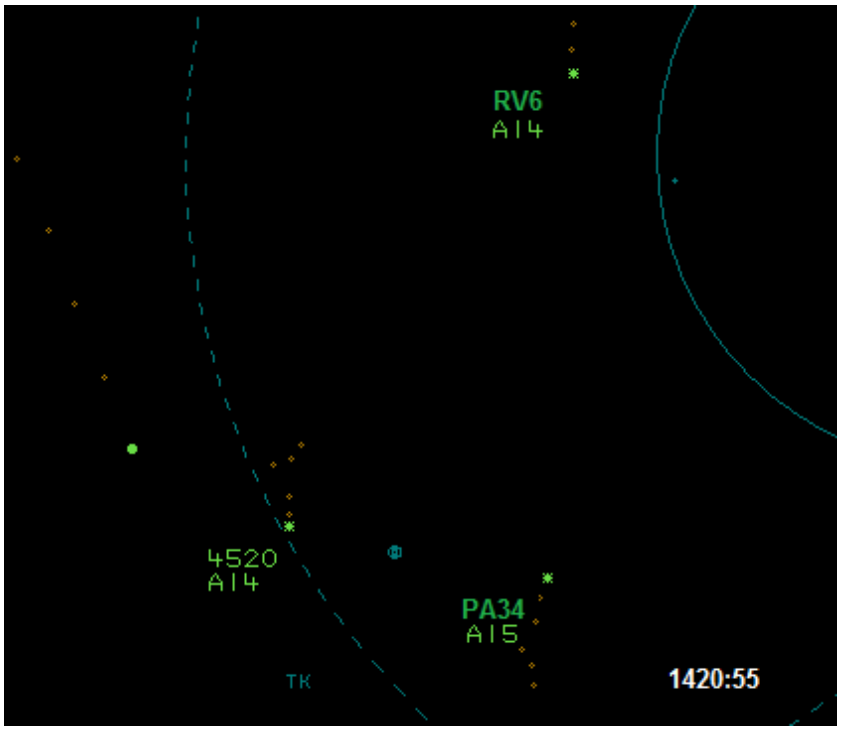

Figure 1.

At 1421:40 the Oxford Tower controller informed the PA34 of "*traffic just crossing the circuit to the east of us not talking to radar believed to be approximately circuit altitude*" (Figure 2). The RV6 was 2.1nm northeast of the aerodrome, just outside the ATZ and, at CPA, the two aircraft were 0.2nm apart, both at 1400ft. The pilot of the PA34 reported that the traffic was in sight.

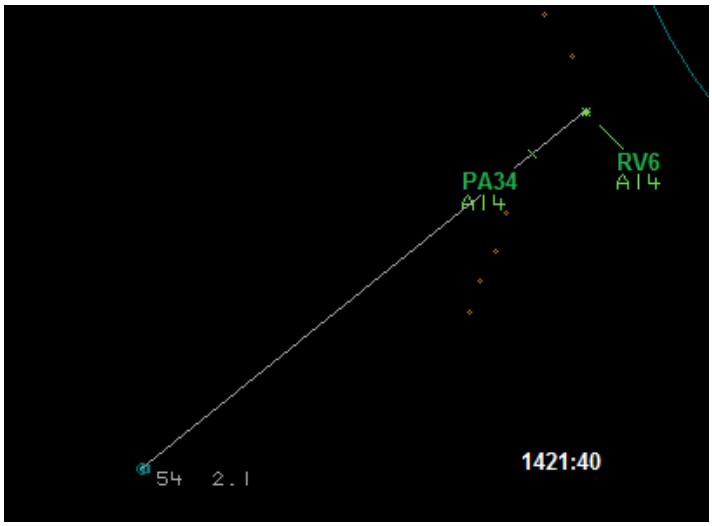

Figure 2.

The report from the pilot of the PA34 stated that they first sighted the aircraft at 2km away and that the aircraft was level opposite direction, constant bearing and closing, with a high risk of collision.

The report from Oxford ATSU stated that the unknown traffic (the RV6) appeared to transit the gap between the ATZ and D129 in confliction with the PA34 in the circuit. The PA34 reported to the ATSU that they had gained visual contact, descended, and turned to avoid whilst also displaying a greater aircraft cross-section so the other aircraft could see him. Oxford asked Benson to track the RV6 and the pilot subsequently reported that he did not see the PA34 in the circuit. The report from the ATSU stated that 'shooting the gap' between the Oxford ATZ and Weston-on-the-Green is a relatively common occurrence.

The Approach radar controller drew the Tower controller's attention to the RV6 at 1420:10, however the PA34 was not informed of the presence of the RV6 until 1421:40, as the aircraft were passing. Notwithstanding, the pilot of the PA34 reported sighting the RV6 at a distance of 2km and took action to avoid a collision.

An Airprox was reported between a PA34 in the Oxford ATZ and an RV6 operating outside the ATZ. Traffic information issued by the Oxford Tower controller was not given in sufficient time to assist the pilot of the PA34 to discharge his collision avoidance responsibility.

UKAB Secretariat

The RV6 pilot was required to either obtain permission from Oxford ATC to enter the ATZ, or maintain clear of the ATZ[1], which he did. Additionally, for flights in the vicinity of an airfield he was required to conform to the pattern of traffic formed by other aircraft intending to land at that aerodrome, or keep clear of the airspace in which the pattern is formed[2]. Both pilots shared an equal responsibility to avoid a collision and not to fly into such proximity as to create a danger of collision.[3] If the geometry is considered to be head-on then both pilots were required to manoeuvre to the right[4], although given that the PA34 was operating in the visual circuit and the RV6 was outside the ATZ, a left turn could be considered the better option in these circumstances.

[1] Rules of the Air 2007 (as amended) Rule 45 (Flights within Aerodrome Traffic Zones)
[2] Ibid.,Rule 12 Flights in the vicinity of an aerodrome.
[3] Ibid., Rule 8 (avoiding Aerial Collisions).
[4] Ibid. Rule 10 (Approaching head-on).

Summary

An Airprox was reported on 16 May 2014 at 1420 between a PA34 in the Oxford visual circuit at 1500ft and a RV6 transiting outside the ATZ at 1400ft. The PA34 received Traffic Information from the Oxford Tower controller and took avoiding action, the RV6 pilot did not see the PA34.

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, 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 RV6 pilot. The discussion commenced with general agreement that good airmanship would suggest that a call to Oxford ATC to inform them of his position and intended routing would have been preferable so that Oxford could then have given him traffic information on their circuit traffic and thus allow the RV6 pilot to decide on a different route or height if necessary. There then followed a vigorous debate within the Board's membership regarding the RV6 pilot's choice to route between the Oxford ATZ and D129 in the first place, the impact that this might have had on aircraft operating at Oxford, and his choice of altitude. It was recognised that he was technically within his rights to route as he did, particularly given that modern GPS navigational systems allowed pilots to accurately skirt around airspace and obstructions to a fine degree, but a discussion then ensued about the wisdom of whether the pilot had left himself any room to manoeuvre should there have been opposite direction traffic or other conflicts. In the end, what the pilot members of the Board could agree on was that out of consideration for other aircraft operators, the RV6 pilot would have been better served by selecting a different altitude for his transit such that vertical separation existed with respect to traffic that might have been in the Oxford circuit or radar pattern.

Turning to the PA34 pilot, the Board noted that he seemed to be flying quite a large circuit pattern and that this had contributed to him and the RV6 coming into conflict just outside the ATZ. They also noted that he had reported seeing the RV6 at a range of 2km, and wondered why he had not therefore taken more positive actions to avoid it. Notwithstanding the fact that ATZs were there to provide protection for those conducting visual circuits, and that pilots should therefore endeavour to remain well within their confines, the requirement to avoid aerial collisions did not absolve those in the visual circuit and ATZs from taking actions to avoid other aircraft that might be flying close by. In this respect, the GA pilot members were clear that they felt that the PA34 pilot could have done more to avoid the RV6 given that he had seen it at 2km distance and that he was about to exit the ATZ himself due to his larger than normal circuit.

Finally, the Board considered the action of Oxford ATC. It was agreed that the radar controller had done all that he could, firstly in trying to contact the RV6 pilot and then in passing traffic information to the Tower controller. There was then some discussion about whether the Tower controller should have passed this information to the PA34 sooner, and the Board noted the ATSI comment that "Traffic Information issued by the Oxford Tower controller was not given in sufficient time to assist the pilot of the PA34 to discharge his collision avoidance responsibility". Nevertheless, because the PA34 pilot saw the RV6 at 2 km away, it was agreed that the lateness of Traffic Information was immaterial in this instance.

In determining the cause, after quite a robust debate the Board eventually agreed, by a majority, that the PA34 pilot did not take sufficient avoiding action on first sighting the RV6. They also determined that because the PA34 had the RV6 in sight at an early stage there was no risk of actual collision since effective and timely actions were taken (although more could have been done to prevent this being an Airprox at all); they therefore categorised the risk as a C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The PA34 pilot did not take sufficient avoiding action on first sighting the RV6.

Degree of Risk: C

ERC Score[5]: 4

[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.