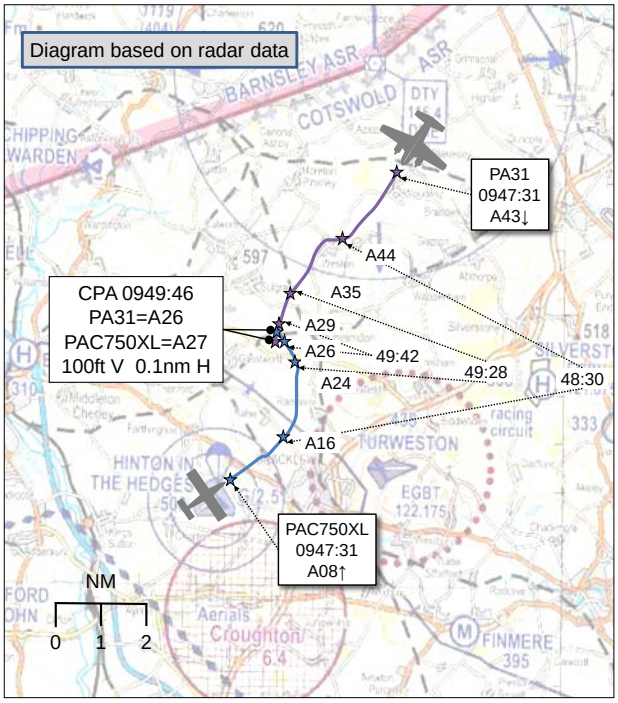
AIRPROX REPORT No 2013119

Date/Time: 23 Aug 2013 0949Z

Position: 52 05N 001 09W (3.8nm NE of Hinton in the Hedges)

Airspace: London FIR (*Class*: G)		
	Reporting Ac	*Reporting Ac*
Type:	PAC750XL	PA31 Navajo
Operator:	Civ Comm	Civ Comm
Alt/FL:	3-3500ft (1013hPa)	2500ft QNH (1015hPa)
Conditions:	VMC	VMC
	Nil Weather	Clear Below Cloud
Visibility:	10km	>10km
Reported Separation:		
	NR V/NR H	100ft V/100-200m H
Recorded Separation:		
	100ft V/<0.1nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PAC750XL PILOT reports flying a white aircraft, VFR in VMC, squawking Mode 3/A 0033[1] with transponder Mode C turned on. He was carrying out 'skydiving operations', in a climbing left turn, at 90kt, passing through 3000-3500ft (1013hPa), around '3.2nm north of the drop zone' with the nose high and banked slightly left. He did not see the PA31 as it approached but he assessed that it had come from his 2-3 o'clock position at a similar level, or slightly lower, around 0.5nm away. He saw the PA31 as it crossed his aircraft's nose, right to left, and saw it manoeuvre to avoid his aircraft.

He assessed the risk of collision as 'None' as the PA31 was 'across our nose and clear by the time I sighted it.'

Figure 1: A PAC750XL

THE PA31 PILOT reports flying a blue and white aircraft, with wing tip lights and HISLs[2] turned on, squawking transponder Modes 3/A, C and S. He had planned an aerial survey in the vicinity of Turweston and Hinton airfields, 'remaining clear of both ATZs[3]' he thought, and had called both airfields prior to getting airborne to explain the nature of the operation. The pilot noted that there were gliding competitions planned and, during his pre-flight briefing, asked the passengers to report any aircraft they saw to him over the intercom. Having left his departure ATZ, the pilot contacted Coventry Radar and agreed a Basic Service; he reports that he chose not to request a Traffic Service because of his range from Coventry and to alleviate the air traffic controller's workload. The pilot then contacted Turweston and Hinton drop-zones on their VHF frequencies and made further 'occasional calls to Hinton drop-zone to keep them updated on his position; he recalls that Hinton drop-zone acknowledged his calls. The PA31 pilot heard Coventry Radar report that the para-dropping aircraft was airborne a few minutes before the Airprox occurred.

[1] Mode 3/A code 0033 is used for parachuting activities.
[2] High Intensity Strobe Lights
[3] Aerodrome Traffic Zone

Whilst heading south at around 2500ft (on Turweston QNH, he recalls) the pilot looked south-west, towards Hinton drop-zone, and then at the ground, towards the 'survey point of interest'; he heard one of the passengers report 'close to the left', so he looked across and saw the PAC750XL approximately 200m away, in his 9 o'clock, slightly above his level and heading roughly west. The PA31 pilot assessed that the PAC750XL would not collide but would pass close behind his aircraft; he rolled the PA31 to the right 'primarily to acknowledge the conflict' and also to increase the separation. Immediately after the conflict the PA31 pilot contacted Hinton on the radio, and after landing by telephone, to confirm the details of the PAC750XL so that he could participate in the Airprox process.

He assessed the risk of collision as 'Medium'.

THE COVENTRY APPROACH CONTROLLER reports that the PA31 pilot called and requested a Basic Service, which was agreed. He reported that, to his knowledge, the PA31 performed the same sortie twice during the morning. The Approach controller's flight progress strip, submitted with his report, indicates that the PA31 was operating at altitudes between 2500ft and 4500ft. The controller recalls informing the PA31 pilot when Hinton became active but was not aware of the Airprox until the pilot informed him of it by telephone later that day

Factual Background

Turweston has an ATZ, Hinton does not, but is a parachuting site published as active from ground level to 2500ft agl with an elevation of 500ft amsl.

The weather at Coventry Airport at 0920 and 0950 was reported as:

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METAR EGBE 230920Z 15009KT CAVOK 22/25 Q1015=
METAR EGBE 230950Z 15010KT CAVOK 22/15 Q1014=
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Analysis and Investigation

CAA ATSI

Coventry had been operating combined Aerodrome and Approach control until 0903 when the positions were split and an oncoming Radar controller opened the Approach/Radar position. CAA ATSI had access to Coventry RTF and area radar recording, together with the written reports from the Coventry Approach/Radar controller and pilot of the PAC750XL. CAA ATSI did not receive a report from the pilot of the PA31.

At 0853 the PA31 pilot established communication with Coventry Approach and a Basic Service was agreed (where the avoidance of other traffic is solely the pilot's responsibility and the controller is not required to monitor the flight). The PA31 pilot transmitted his intention to operate in the Turweston area on an aerial survey between an altitude of 2500ft and 4500ft. The pilot was given the Coventry QNH 1015hPa and asked to squawk 4361 (Coventry conspicuity). When the PA31 pilot initially contacted Coventry Approach, which at the time was operating without the aid of surveillance equipment, the PA31 pilot was advised that Hinton in the Hedges was active; the pilot stated that he intended to give them a call.

At 0903 the Coventry radar became available but no further calls were received from the PA31 pilot until 0951, which was after the Airprox had occurred.

Analysis of the radar recording at 0947:31 showed the PAC750XL departing from Hinton on a northeasterly track. As the PAC750XL continued to climb, the PA31 tracked southwest towards Hinton and started to descend from 4300ft.

At 0949:28 the distance between the two aircraft was 1.4nm, with the PA31 at 3500ft in the descent and the PAC750XL passing 2400ft in the climb. The PAC750XL commenced a left turn

onto a northwesterly track and started to converge with the PA31. By 0949:42 the distance between the two aircraft was 0.4nm and the next update of the radar showed the PAC750XL passing 0.1nm behind and 100ft above the PA31 as shown in Figure 2.

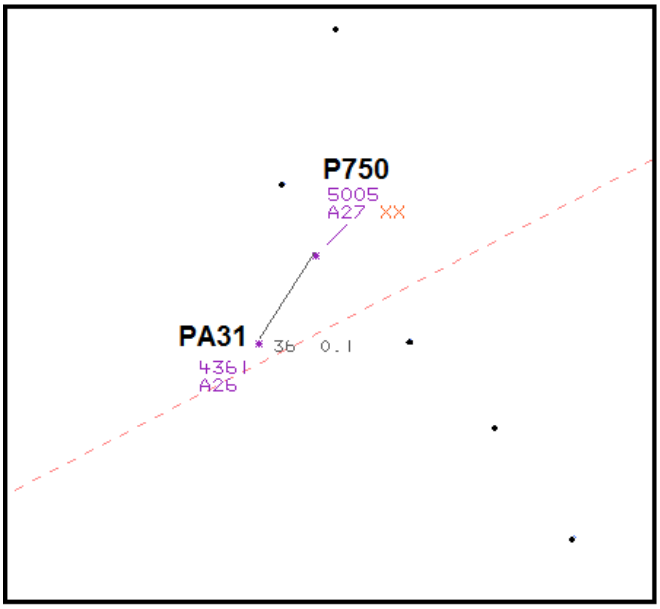

Figure 2: Swanwick MRT at 0946:46

No radio calls were received by Coventry Radar from the PA31 pilot regarding another aircraft in the vicinity. At 0951 the PA31 pilot reported that he expected to be operating in position for another 30 minutes and at 1016 the PA31 pilot reported the detail complete before then squawking 7000 and changing frequency to Sywell on 122.7MHz.

The PA31 pilot telephoned Coventry ATC later that day, reported being very close to another aircraft and stated his intention to file an Airprox. No further details were made available and the Coventry Approach/Radar controller's written report indicated that he did not recollect the time of the incident or any details of another aircraft involved.

UKAB Secretariat

Both pilots had equal responsibility to avoid each other[4]. The aircraft were converging at approximately the same altitude and, because the PAC750XL pilot had the PA31 on his right, he was required to give way[5].

Summary

The Airprox occurred at 0949:44, 3.6nm to the northeast of Hinton-in-the-Hedges airfield, within Class G, uncontrolled airspace, between a PAC750XL and a PA31. The PAC750XL departed VFR from Hinton in the Hedges airfield for a skydiving operation and was in communication with Hinton Radio but not in receipt of an Air Traffic Service. The PA31 was operating VFR on an aerial survey in the Turweston area and was in receipt of a Basic Service from Coventry Radar, who had advised the PA31 pilot that Hinton drop zone was active, but was not able to pass any specific information on the intentions of the PAC750XL pilot.

[4] Rules of the Air 2007, Rule 8, Avoiding aerial collisions
[5] Rules of the Air 2007, Rule 9, Converging

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 controller involved, and a report from the appropriate ATC authority. Board members noted the open and honest reports of both pilots and unanimously praised them for their pro-active approach to Airprox reporting; this had greatly assisted in analysing the event. .

The Board first discussed the actions of the PA31 pilot and agreed that he had done all that could be reasonably expected, and more, to keep Hinton and Turweston well informed of his route and activity. However, members were concerned that his efforts had seemingly come to nought because they were not convinced that Hinton had passed on the information in an effective manner; the Board wondered whether the information had actually reached, or been assimilated by, the PAC750XL pilot. Given his survey tasking, members debated whether the PA31 pilot may have been better served by requesting a Traffic Service from Coventry ATC, which was just over 20nm away. However, they concluded that the estimated base of radar cover in this area would have meant that little warning would have been available in this particular case, especially as the PAC750XL would have been 'popping-up' into radar cover. Finally, given the nature of both pilots' tasks, the Board speculated whether they may both have become task-focussed at the expense of their lookout, but they could not be certain of this.

Members noted that the PAC750XL pilot had not seen the other aircraft until it had passed clear, and that the PA31 pilot had only seen the PAC750XL at the last minute; members agreed that the cause of the Airprox was effectively a non-sighting by the PAC750XL pilot and a late sighting by the PA31 pilot. There was much discussion about the associated degree of risk, with the debate swinging between either a B or a C. However, in the end it was agreed that, because the PAC31XL pilot had not been able to take any action, and that the PA31 pilot's roll had probably been too late to take effect, the risk was B; although avoiding action may have been taken to prevent collision, safety margins were much reduced below normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively, a non-sighting by the PAC750XL pilot and a late sighting by the PA31 pilot.

Degree of Risk: B

ERC Score[6]: 101

[6] 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.