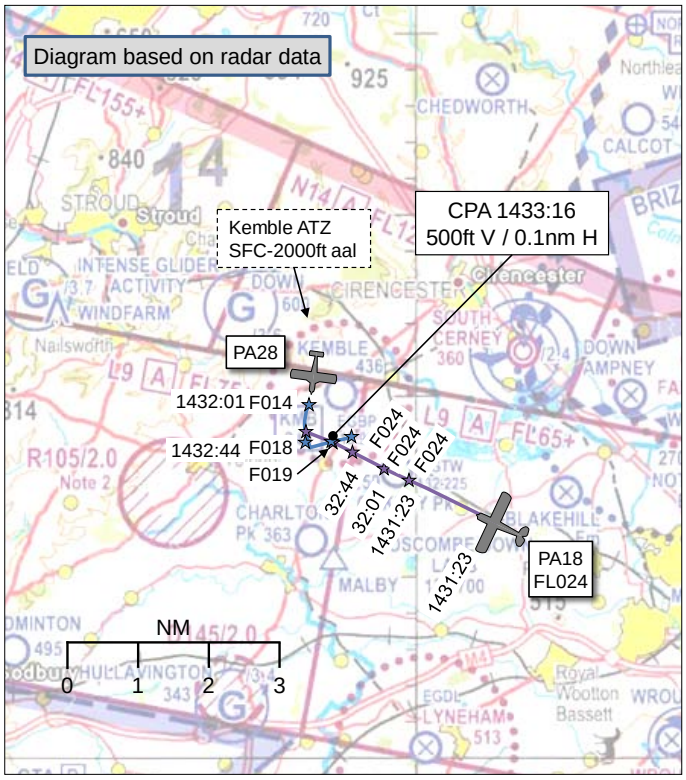
AIRPROX REPORT No 2013041

Date/Time: 16 May 2013 1433Z

Position: 5139N 00205W (1.5nm W of Kemble)

Airspace: Kemble ATZ (*Class*: G)

	Reporting Ac	*Reported Ac*
Type:	PA28	PA18
Operator:	Civ Club	Civ Club
Alt/FL:	1000ft QFE (983hPa)	2000ft QNH (998hPa)
Weather:	VMC CAVOK	VMC CAVOK
Visibility:	>50km	50nm
Reported Separation:	500ft V/Nil H	500ft V/10m H
Recorded Separation:	500ft V/0.1nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PA28 PILOT reports flying a visual circuit detail at Kemble, under a BS he thought, with a student as the handling pilot; visibility was '50km plus' with a cloud-base of 'at least 3500ft'. They were LH downwind for RW26, hdg 080°, at 1000ft QFE, flying at 95kt, when they saw the PA18 approaching 'head-on' and close enough 'to easily read its registration.' He expressed concern that 'Had we been climbing into the overhead for a departure, the ac would have been invisible below our nose and a collision quite probable.' The pilot reported the event on Kemble Information's frequency.

He assessed the risk of collision as 'Low'.

THE PA18 PILOT reports hdg 300°, in a predominantly white ac, from White Waltham to Gloucester, via Membury and Oaksey Park, with no lights but squawking Mode 3/A 7000 with Mode C switched on. He planned to route OH Kemble so, at 10nm from the OH, he contacted Kemble Information for an AFIS and requested clearance to cross the ATZ at 2000ft QNH 998hPa [UKAB Note 1: 1595ft QFE]. He was requested to report OH Kemble and 'monitored the frequency closely' to maintain his situational awareness of the Kemble traffic; he noted some ac departing the area to the N, and ac taxying on the airfield. He heard the FISO advise an ac that gliding was in operation at Aston Down and decided to maintain his current track until clear to the W of Aston Down. He informed Kemble Information that he now intended to pass 1-1.5nm SW of the airfield instead of through the OH, and recalls being requested to report 'West abeam the field'. About this time, he heard an ac calling for departure from RW26 and could 'clearly see a white dot line up and take off'. As he did not have any TI on the departing ac the pilot reports maintaining visual contact to establish its intentions. He watched the PA28 as it 'climbed ahead, turned left still climbing, and eventually turned left again onto a track more-or less in the opposite direction' to his own. He noted that the PA28 had levelled off below his ac and appeared to be entering the vis cct. He reports maintaining 'clear and continuous visual contact' with the PA28 until it was clear of his ac. As he assessed the vertical separation to be 500ft, he expressed surprise that the PA28 pilot had been concerned at their proximity.

He assessed the risk of collision as 'None'.

Factual Background

Kemble ATZ is Class G airspace, notified as a circle, 2nm radius centred at 514005N 0020325W on the longest notified runway (RW08/26) from surface level to 2000ft aal. The Kemble Aerodrome elevation is notified as 436ft.

The PA28 was operating VFR, in the LH cct for RW26, and was in receipt of an AFIS from Kemble Information.

The PA18 was operating VFR, on a flight from White Waltham to Gloucester and was in receipt of an AFIS from Kemble Information.

The Gloucester METARs are provided for 1420 and 1450 UTC:

EGBJ 161420Z 11003KT 9999 FEW040TCU 14/M01 Q0998=
EGBJ 161450Z 00000KT 9999 FEW040 14/M01 Q0998=

Investigation Analysis

ATSI had access to written reports from the pilots of the PA28 and the PA18, area radar recordings, RTF recordings and transcripts of the Kemble Information frequency together with the unit report from Kemble. CAA ATSI also interviewed the Kemble FISO. The Kemble recordings are on a voice activated system, not a continuous recording, therefore the timings of transmissions are approximate (within 30 seconds).

At 1420:00 the PA28 contacted Kemble Information requesting ccts. The Kemble FISO advised that RW26LH was in use and gave the QFE as 983hPa. The PA28 pilot read back the QFE as 998hPa, which was the prevailing QNH.

At 1425:30 the PA18 pilot contacted Kemble Information having just passed Swindon at 2000ft on 995hPa [UKAB Note 2: 1676ft QFE] requesting to route via the overhead.

The Kemble FISO requested the PA18 pilot to state his pressure setting and he replied 995hPa. The FISO advised the PA18 pilot that there was one aircraft to depart heading for Benson and to report entering the zone; he replied "*WILCO*" and was informed that Kemble was "*active, we're two six left hand QNH is 998*". The PA18 pilot replied that he was setting 998hPa.

Having taxied out and reported ready for departure from RW26, at 1430:00, the PA28 pilot was advised to take off at his discretion.

The PA28 was observed, on the radar recording, conducting the circuit at FL018 which converts to 1395ft QNH [UKAB Note 3: 990ft QFE] using 27ft=1hPa. The cct height at Kemble is 1000ft aal (1433ft QNH), so the incorrect readback of the pressure setting, although not corrected by the FISO, did not appear to have any bearing on the incident.

At 1431:30 the PA18 pilot reported "*just passed Oaksey Park entering your ATZ we'll actually be passing about a mile and a half to the southwest*"; the FISO asked him to report '*west abeam*' Kemble.

At 1432:43 the PA28 had turned downwind, indicating FL018, with the PA18 opposite direction, indicating FL023, 1.2nm apart. The ac continued to converge until the radar tracks crossed 1.5nm to the SSW of Kemble with the PA28 indicating FL019 [UKAB Note 4: 1090ft QFE] and the PA18 indicating FL024 [UKAB Note 5: 1590ft QFE]). The PA28 pilot reported to Kemble that the PA18 had just passed directly opposite the PA28 about two hundred feet higher in the circuit. The FISO replied that the PA18 pilot had reported that he was going to be 1.5nm W.

The PA28 pilot replied that if he had been 200ft higher "*it would have been an airmiss*".

The PA18 pilot reported having the PA28 in sight at all times and maintaining 2000ft on the QNH 998hPa [UKAB Note 6: 1595ft QFE].

The written report from the pilot of the PA28 stated that, having turned downwind at 1000ft on the QFE, the PA18 was seen approaching head on but above. The PA18 passed over the PA28 close enough that the pilot of the PA28 could easily read the registration.

The PA18 pilot reported that he heard the PA28 pilot being given line-up clearance and watched as the PA28 became airborne and entered the circuit. The PA18 pilot kept the PA28 in sight and judged that the PA28 passed him approximately 500ft below and to the left; he considered that there was no risk of collision.

The Kemble FISO stated at interview that he'd asked the PA18 pilot to report OH, which is common practice for ac above 2000ft. When the PA18 pilot reported that he was routeing to the SW, and the FISO asked the pilot to report "*west abeam"*, he believed that the PA18 would remain outside the ATZ and did not consider the traffic to be relevant to the PA28 in the circuit.

ANALYSIS

Both ac were operating in Class G airspace where ultimately both pilots are responsible for their own collision avoidance.

CAP797 the Flight Information Service Manual, Section 2, Chapter 1, paragraph 1.3 states:

> 'Traffic information on traffic operating in the vicinity of an aerodrome shall be issued in a timely manner when, in the judgement of the FISO, such information is necessary in the interests of safety, or when requested by aircraft. When a pilot report indicates, or an FISO considers, that there may be a collision risk, specific traffic information shall be passed to each pilot concerned.'

The PA18 pilot was informed that the LH cct was active but no TI was passed to the PA28 pilot. The PA18 pilot reported that he would pass approximately 1.5nm SW of Kemble at 2000ft, having been passed the QNH by the Kemble FISO. The PA18's transit of the Kemble ATZ was consistent with the pilot's intended and reported track.

The Kemble FISO believed that the PA18 would remain clear of the ATZ due to being told to report "*west abeam*". It is possible that, amongst local pilots, the use of the phrase "*west abeam*" has come to be understood that an aircraft should remain outside the ATZ, however, there is no official definition of the phrase "*west abeam*" and therefore no associated restriction regarding the ATZ.

The Kemble FISO believed that he'd asked the PA18 pilot to report OH but, in fact, he had asked the pilot to report entering the ATZ. The PA18 pilot had already reported entering the ATZ prior to being told to report "*west abeam*" and was therefore unlikely to route outside the ATZ as the FISO was anticipating.

CONCLUSIONS

An Airprox was reported between a PA28 and a PA18 1.5nm to the SSW of Kemble Aerodrome, inside the ATZ. The PA28 pilot was informed by the Kemble FISO that the LH cct was active but more specific TI was not passed. TI on the PA18 was not passed to the PA28 pilot due to the FISO's erroneous belief that the PA18 would remain outside the ATZ, despite the PA18 pilot's report that he was entering the ATZ, and his compliance with his declared intention to transit at 2000ft QNH, 1.5nm southwest of Kemble.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available to the Board consisted of the reports from the pilots of the PA28 and the PA18, radar recordings and RT transcripts of the Kemble Information frequency.

A Board member asked whether it would have been more sensible for the PA18 pilot to have climbed and transited above the Kemble ATZ; this would have then negated any need to contact Kemble at all or avoid its cct traffic. The GA members responded by noting that the Kemble vis cct is 1000ft QFE vice the 1500ft flown by the PA18, and informed the Board that 500ft separation within an ATZ is normal. They also noted that the PA18 pilot was listening carefully to the RT, and had maintained visual contact with the PA28 from the moment it lined-up for departure. The Board noted that, although the FISO had not passed TI on the PA18 to the PA28 pilot, he was not required to do so; furthermore, the PA18 pilot had discussed his routing with the FISO after the PA28 pilot had checked in on frequency, so there had been an opportunity for the PA28 pilot to have gained situational awareness from the RT. There had been some confusion in the mind of the FISO about the PA18s actual routing and the Board noted that the use of potentially ambiguous calls such as 'report west-abeam' may not have helped the situation.

The Board members noted that the PA28 pilot was concerned that, if he had been climbing further then the incident may have been more serious; however, because the PA18 pilot had maintained visual contact with the PA28 throughout, the Board decided that it was unlikely that safety would have been further compromised. Although either better RT or the passing of TI from the FISO could have increased the situational awareness of the PA28 pilot such that he would have expected to see the PA18 as he rolled out downwind, overall the Board concluded that normal separation standards for GA ac in an ATZ had pertained; the Board allocated a Risk Grading of E.

The safety barriers pertinent to this Airprox were: 'FISO rules and procedures', 'aircrew rules and procedures', 'visual sighting', 'aircrew action' and 'situational awareness gained from RT'. The Board concluded that, although 'situational awareness from RT' had a reduced effect due to the use of potentially ambiguous phraseology and the fact that the PA28 pilot was not aware of the PA18's presence, overall the barriers had been effective. In addition, the Board felt that, in the circumstances as they occurred, there had not been a likely accident outcome so the Airprox was allocated an Event Risk Classification score of 1.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The PA28 pilot was concerned by the proximity of the PA18.

Degree of Risk: E.

ERC Score: 1.