

## AIRPROX REPORT No 2010094

Date/Time: 10 Jul 2010 1105Z (Saturday)

Position: 5159N 00120W (9nm N  
Oxford - elev 270ft)

Airspace: Oxford AIAA (Class: G)

Reporting Ac Reported Ac

Type: FK50 PA28

Operator: CAT Civ Trg

Alt/FL: 1800ft 2000ft  
(QNH 1018mb) (QNH 1018mb)

Weather: VMC CLBC VMC CLBC

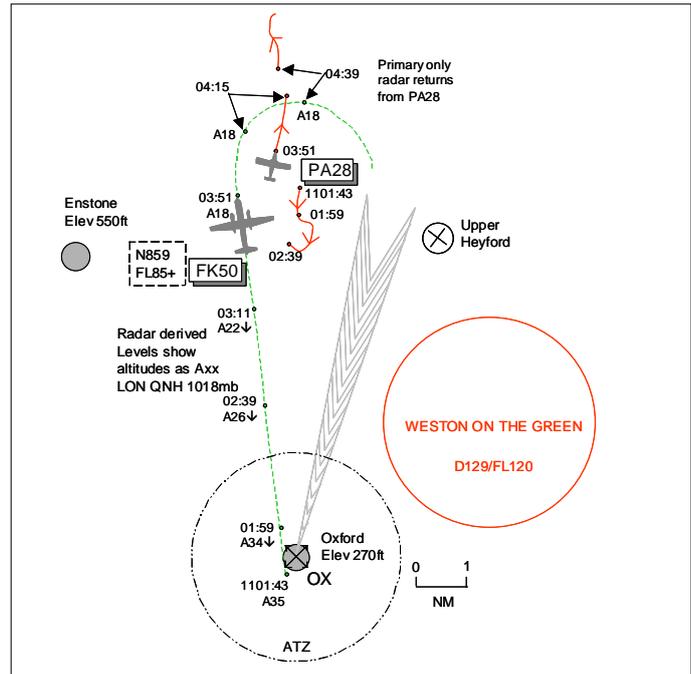
Visibility: 10km 10km

Reported Separation:

Nil V/<0.5nm H 500ft V/0.5nm H

Recorded Separation:

<0.5nm



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE FK50 PILOT** reports inbound to Oxford, IFR and in communication with Oxford Approach squawking an assigned code with Modes S and C. They were positioning for RW19, level at 1800ft QNH 1018mb at 150kt. Although they had been informed of several ac in the proximity of Oxford, they did not expect to see a PA28 a couple of hundred metres away (<0.5nm) on a conflicting course during their inbound turn towards the LLZ at the same altitude. They increased their AoB to tighten the turn towards the LLZ, later informing ATC of the incident after landing.

**THE PA28 PILOT** reports flying a trial lesson from Oxford, VFR and in receipt of a BS from Oxford Approach squawking 7000 with Mode C, he thought [no squawk seen on the radar recording]. The visibility was 10km flying 1000ft below cloud in VMC and the ac was coloured blue with nav lights switched on. He believed he was approximately 6.5nm bearing 340° from Oxford at the time at 2000ft QNH and 90kt when he thought he heard APP informing an FK50 flight of a PA28 [actually an AA5 overflight] to the NW of Oxford and that APP was referring to his ac. APP then asked him to "hold off" for the FK50, which he acknowledged and made his heading 360°. He became visual with the FK50 about 3-5km away and considered that he should continue until it turned inbound, which it did 500ft below and 0.5nm away behind his ac. He did not believe there was a chance of collision as both he and the FK50 crew were visual with each other – after landing he heard the FK50 crew state they had seen a PA28, which they were told to expect, he thought – and he believed he would have appeared on the FK50's TCAS. Also, owing to his speed, he did not believe that the FK50 would catch up. He assessed the risk as low.

**THE OXFORD APPROACH CONTROLLER** reports the FK50 was handed over from LACC descending to altitude 3500ft and was cleared to the OX and onto the NDB ILS approach for RW19 on reaching. The PA28 flight called in the Upper Heyford area (7nm N) for a VFR straight-in approach to RW19 and was told to hold N of Upper Heyford, he thought, due inbound IFR traffic having priority. The base turn for the RW19 ILS approach commences at 6.5nm, S of Upper Heyford. Without radar it was impossible to say when the FK50 commenced the turn or where the PA28 was holding off. The FK50 crew reported commencing the turn and was asked to report established on the LLZ, the crew then reported visual with the PA28. The FK50 completed the approach without further incident and the PA28 positioned behind.

**ATSI** reports that the Airprox occurred at 1104:32 in Class G airspace 9nm to the N of Oxford Airport and 3.9nm to the NW of Upper Heyford. Oxford ADC and Oxford APP were operating split positions, without the aid of surveillance equipment. The FK50 was inbound to Oxford from Jersey in receipt of a PS whilst the PA28 was operating on a local VFR detail from Oxford airport and in receipt of a BS. No METAR was available for Oxford; however, the Brize Norton weather was reported as: METAR EGVN 101050Z 23007KT 9999 FEW030 BKN042 BKN230 23/14 Q1018 BLU NOSIG=

The PA28 flight departed Oxford and at 1053:56 called Oxford Approach. A BS was agreed and the PA28 pilot was asked to call when changing frequency or when ready to rejoin. At 1059:16 the FK50 flight reported 8nm S of the 'OX' in the descent to 3500ft on QNH 1017mb, requesting an ILS approach for RW19. At 1059:48 APP advised, *"(FK50)c/s roger Weston on the Green danger area one two niner is active to flight level one three zero on reaching the Oscar X-ray route outbound for the ILS runway one nine to report beacon outbound"*; this was acknowledged by the FK50 crew. About 40sec later at 1100:45 an AA5 flight called APP overhead Enstone at 2800ft, routeing from Wellesbourne to Lydd via the Oxford O/H and requested a BS. A BS was agreed and APP passed TI on the FK50 routeing through the Oxford O/H going outbound at 3500ft descending to 1800ft for the ILS. The AA5 pilot acknowledged the TI and advised, *"The traffic's copied Basic Service and we're looking (AA5)c/s"*. APP then passed TI on the AA5, *"(FK50)c/s that traffic just called me an AA five Tiger overhead Enstone which is approx ten miles to the northwest of Oxford routeing towards the overhead two thousand eight hundred feet VFR"*. At 1101:47, the FK50 crew reported, *"Understood Sir and we're presently overhead er Oscar Xray and proceeding outbound er it's the (FK50)c/s"*. The FK50 crew was asked to report localiser established. Immediately after this at 1101:56 the PA28 pilot called APP, *"(PA28)c/s is Upper Heyford request straight in runway 19"*. APP replied *"(PA28)c/s negative er hold off at Upper Heyford er there's Fokker fifty traffic just outbound on the ILS you can come in behind him"*. The PA28 pilot responds, *"OK Wilco (PA28)c/s"*.

The main procedure for ILS RW19 requires an ac to proceed outbound on QDR 001 (Cat A & B), QDR 354 for (CAT C), descend altitude 1800ft, at 6.5nm commence a R turn to intercept the LLZ. Upper Heyford is positioned 6.6nm to the NNE of Oxford Airport and lies just to the E of the extended C/L for RW19.

[UKAB Note (1): The radar recording between 1101:43 and 1102:39 shows an intermittent primary contact, believed to be the PA28, manoeuvring 6-7nm N of Oxford airport and 3nm WNW of Upper Heyford, close to the instrument let down area. The primary only return fades after the sweep at 1102:39, when it is 3nm N of the FK50 and turning through a NW'ly heading.]

In response to a request from Approach the FK50 pilot reports at 1103:10, *"now passing two thousand two hundred feet er (FK50)c/s"*. APP then approved the transit of the AA5 via the Oxford O/H at 2800ft VFR on QNH 1017 and asked the AA5 pilot to report in the O/H. The radar recording shows a contact displaying a squawk of 7000, routeing from Enstone towards the Oxford O/H and passing 2.7nm SW of the FK50.

[UKAB Note (2): The PA28 reappears on radar at 1103:51 7.5nm N of Oxford tracking 010° in the FK50's 0130 position range 1.1nm, the FK50 level at 1800ft QNH 1018mb.]

At 1104:18 the FK50 crew reported, *"traffic in sight er (FK50)c/s"*. The Approach controller responds, *"(FK50)c/s roger I see you in the right turn report localiser established"*. It is probable that the traffic that the FK50 crew reports in sight is the PA28. Shortly afterwards, at 1104:29, the AA5 pilot reports O/H Oxford.

[UKAB Note (3): At 1104:15 the radar recording shows the FK50 in a R turn with the PA28 crossing through its 12 o'clock range 1nm tracking N; the PA28 then fades from radar. The PA28 reappears 24sec later at 1104:39 tracking N 0.8nm NW of the FK50, which is turning though an E'ly heading. The CPA is not captured but it is estimated to be <0.5nm]

At 1105:19 FK50 flight reports localiser established and is transferred to the Tower. Immediately after this at 1105:25 APP asked the PA28 flight, *"(PA28)c/s are you visual with the Fokker fifty"*

*inbound*” and the PA28 pilot replies, *“Affirm just descending behind him (PA28)c/s”*. APP then informs the pilot, *“(PA28)c/s roger er caution the vortex wake recommended spacing is four miles”*. The PA28 flight is advised to continue for a straight in approach RW19 and passed the QNH 1017. The PA28 is then transferred to the Tower at 1107:11 when the pilot reports the field in sight.

At 1117:33 the FK50 pilot contacted the Tower to report the occurrence, *“Er just to inform you that we are er we were during the turn inbound towards er to intercept the localiser err and a piper aircraft what it seemed to be a piper at about half a mile same altitude one thousand eight hundred feet”*. The ADC acknowledged the call, *“(FK50)c/s er roger I believe the approach controller was aware of that traffic and er if er you want to take it further then you’ll have to you you’re happy er give us a call in the tower.”*

The APP in his written report states that without radar it was impossible to say when the FK50 commenced the turn or where the PA28 was holding off.

CAP493 Manual of Air Traffic Services MATS Pt1 (01/07/10), Section 3, Chapter 1, page 5, paragraph 8, states:

*‘A particular watch should be kept for situations where a VFR flight may approach the aerodrome in a sector in which other aircraft are letting down on an instrument approach aid, or where sequencing is in operation. D/F indications, where available, will assist in this respect. In these circumstances the pilot of the VFR flight should not be given clearance for a straight-in approach and should be advised to avoid the initial and final approach areas.’*

The pilot of the PA28 was in receipt of a BS and reported at Upper Heyford, requesting a straight in approach. It appears that the position report from the pilot was incorrect. The PA28 pilot did not report, nor did the controller request level information from the PA28. For traffic in receipt of a PS, MATS Pt 1 requires that the controller shall provide TI, if it is considered that a confliction may exist, on ac being provided with a BS. Based on the position report from the PA28 at Upper Heyford, it is probable that APP considered the PA28 was not conflicting traffic and was holding E of the final approach and instrument let down. However, because the reported position of the PA28 was close to the final approach sector, albeit to the E, it would have been appropriate for the controller to have passed TI to the FK50.

The PA28 was in receipt of a BS and MATS Pt1 (01/07/10), Section 1, Chapter 11, page 4, paragraph 3.1.1, states:

*‘A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot’s responsibility.’*

The pilot of the FK50 was in receipt of a PS and MATS Pt1 (01/07/10), Section 1, Chapter 11, page 10, paragraph 6, states:

*‘Procedural Service*

*6.1.1 A Procedural Service is an ATS where, in addition to the provisions of a Basic Service, the controller provides restrictions, instructions and approach clearances, which if complied with, shall achieve deconfliction minima against other aircraft participating in the Procedural Service. Neither traffic information nor deconfliction advice can be passed with respect to unknown traffic.*

*Traffic Information*

*6.5.1 The controller shall provide traffic information, if it is considered that a confliction may exist, on aircraft being provided with a Basic Service and those where traffic information has been passed by another ATS unit; however, there is no requirement for deconfliction advice to be passed, and the pilot is wholly responsible for collision avoidance. The controller may, subject to workload, also provide traffic information on other aircraft participating in the Procedural Service, in order to improve the pilot’s situational awareness.’*

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

Although the FK50 flight was carrying out an instrument approach under IFR and was receiving a PS, the incident occurred in Class G airspace where pilots are responsible for maintaining their own separation from other traffic through see and avoid. The FK50 crew were surprised when they saw the PA28 during their turn towards the LLZ particularly as no TI had been passed on the PA28 by APP. Moreover, the PA28's transponder was either unserviceable or not switched on so that the FK50 crew were not aware of the ac's presence from the FK50's TCAS equipment. Pilots are strongly encouraged to ensure that their transponders are working correctly and selected to transmit Mode C throughout their flight in accordance with national procedures. That said, it would not be unusual for there to be ac flying VFR in the area not working ATC who, in the procedural environment at Oxford, would be unaware of all of the traffic. It was unclear why Oxford APP did not pass TI for, although it appears that the PA28 pilot's position report at Upper Heyford was inaccurate, the proximity of the disused aerodrome to the FAT, where APP told the PA28 pilot to hold, was close enough for the passing of TI to be warranted. This RT exchange between the PA28 pilot and ATC was there to be heard by all flights on frequency and could have improved the FK50 crew's SA to the potential confliction if they had heard and assimilated it. One controller Member opined that the D/F equipment at Oxford should have indicated the PA28's bearing and indicated its position relative to the FAT; however, the serviceability of the equipment was unknown. The PA28 pilot was told about the FK50 and saw the airliner at some distance and elected to continue on a N'y track until the FK50 turned inbound towards the ILS behind his ac, about 0.5nm away. The FK50 crew saw the PA28 ahead and increased the AoB to tighten their turn watching it pass clear to their L by 0.5nm. In the Board's view, the PA28 pilot had fulfilled his responsibilities and this Airprox was the result of a sighting by the IFR FK50 crew of the VFR PA28 traffic, where the actions taken by both crews had removed any risk of collision during the encounter.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: A sighting report.

Degree of Risk: C.