

## AIRPROX REPORT No 2012105

Date/Time: 22 Jul 2012 1738Z (Sunday)

Position: 5137N 00012E (3nm SE of Stapleford.)

Airspace: Restricted Zone R112 (Class: G.)

Reporting Ac      Reported Ac

Type: PA23                      PA28

Operator: Civ Pte              Civ Pte

Alt/FL: 2400ft                      2200ft  
QNH (1025hPa)      QNH (1025hPa)

Weather: VMC CAVOK      VMC NR

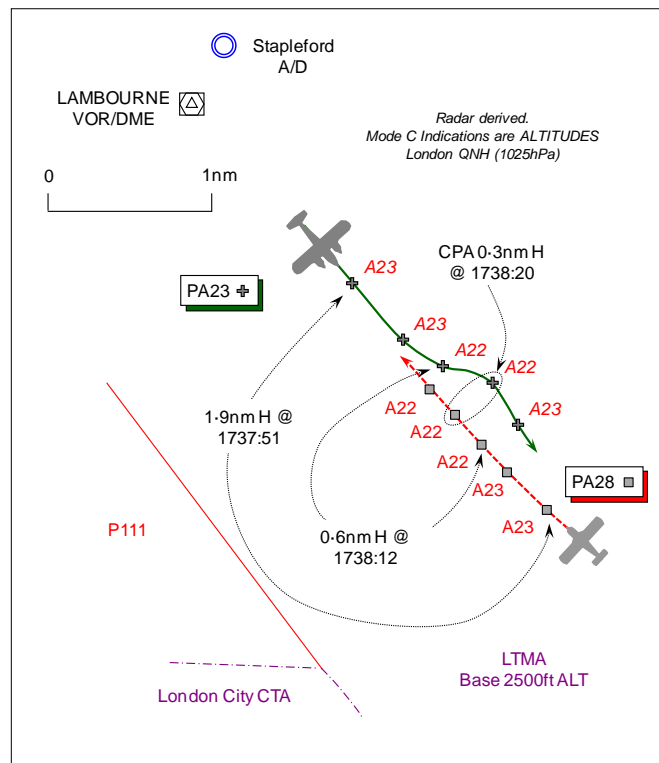
Visibility: 50nm                      10km

Reported Separation:

Nil V/150m H      NR

Recorded Separation:

Nil V/0.3nm H



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE PIPER PA23 AZTEC PILOT** reports he was inbound to Biggin Hill VFR with two other qualified pilots on board as passengers. In transit at 2400ft London QNH (1025hPa), he was receiving a TS from ATLAS CONTROL [at LATCC (Mil)]. There was no cloud and the visibility was unlimited; his passengers had been briefed to keep a lookout, but they were also admiring the view across London. Approaching the vicinity of Damyn's Hall A/D, heading 160° at 155kt the controller called 'opposite direction traffic half a mile [he thought - actually 2nm] same level'. His passenger in the RH seat first spotted the other ac [the PA28] about 400m away at the same level and pointed to it. He acquired it about 1sec later – a white low-wing single engine ac – about 300m away in a level cruise slightly offset to their R. Aware of P111 immediately to their R, he did not want to turn R (rule 10), which would have been directly towards the Olympic Site and unexpected, so he disengaged the A/P and broke hard L – probably into a 60° banked turn. He lost sight of the PA28 in the turn, but his passenger reported it passing down their RH side about 150-200m away and cleared in 2-3secs. Minimum separation was about 150m at the same altitude and the Risk 'high'. He reported the Airprox to ATLAS CONTROL about 1min after the event.

**THE PIPER PA28 PILOT** reports he was inbound to Elstree from Le Touquet VFR, routinging DVR – DET – LAM – BPK – Elstree in receipt of a BS from ATLAS CONTROL on 119.225MHz. He elected to route LAM to BPK to avoid the London Prohibited Zone P111 and also to keep out of the Stansted CTA, whereas his normal route back to Elstree would have taken him over the Northern part of the Lea Valley to Potters Bar. He was concerned prior to the flight that many other ac might be using the same routing to avoid both the Olympic Prohibited Zone - P111 - and the Stansted CTA and the narrowest point (East of Cheshunt) is a corridor just 1.8nm wide. As a result of the risk assessment he was aware that he needed not only to be extremely careful to hold his heading in order to avoid CAS, but he was also concerned to keep a greater lookout than normal for other ac taking the same track. He can recall briefing his passengers at or around the point of the Airprox to help by keeping a good lookout for other ac but otherwise not to disturb him as he needed full concentration at this point. In transit at a level cruising altitude of 2200ft London QNH (1025hPa) in VMC, heading 315° at 112kt at apposition 3nm SE of Stapleford, neither he nor his passengers saw the PA23 flown by the reporting pilot.

Many lessons have been learned from this Airprox, in particular that the narrow route created by the airspace restrictions represents a potential danger zone, which he fully intends to avoid in future. He is very surprised that despite the extra planning and thinking, he did not spot this PA23.

**THE LATCC (Mil) ATLAS CONTROL TACTICAL CONTROLLER 3 (TAC 3)** reports that he was one of 3 controllers operating in the northern portion of R112. The PA23 was sent to him due N of R112 and proceeded inbound to Biggin Hill. The ac transited between the London/Luton and London/Stansted CTR's at altitudes between 2000 – 2400ft London QNH (1025hPa). Once 3nm N of P111, the PA23 turned onto a SE'ly heading direct for Stapleford A/D. He had already arranged a crossing of Stapleford ATZ, however the pilot opted to overfly above the Zone. Traffic information was given on a contact as 'Traffic 12 o'clock 4 miles opposite direction similar level.' Seeing this track as an obvious confliction he called the traffic again at 1nm. The PA23 pilot responded 'visual, avoiding action'. He interpreted this to be the pilot asking for an avoiding action turn and he suggested a heading of 070°, however, the PA23 pilot stated that he did not ask for a turn, but was merely advising him that he had taken avoiding action. After a brief period of silence, the PA23 pilot stated he wished to file an Airprox; the details were obtained from him on frequency and the SUPERVISOR informed.

**BM SAFETY MANAGEMENT** reports that this Airprox occurred between the PA23 operating VFR in receipt of a TS from ATLAS CONTROL TAC 3 and the PA28 operating VFR in receipt of a BS from ATLAS CONTROL TAC 1.

TAC 3 reports their workload was low with 3 ac on frequency and routine task complexity. The unit did not obtain a report from TAC 1, nor impound the RT and associated landline recordings. However, the Unit did complete a brief analysis of the incident in the immediate aftermath and their notes were made available to BM SM.

The unit determined that TAC 1's workload was high with 4 to 5 ac on frequency; no comment was made on the complexity of the task. However, it is accepted that the ATLAS CONTROL task was complex, with controllers operating in unfamiliar airspace of known complexity with relatively high volumes of traffic. The unit's analysis of TAC 1's RT determined that no warning was passed to the PA28 pilot about the proximity of the PA23.

TAC 3 passed TI on the PA28 to the pilot of the PA23 at 1737:51 stating, "*..traffic 12 o'clock, 2 miles, opposite direction, similar height.*" At this point, the PA28 was 1.9nm SE of the PA23, tracking NW'ly indicating 2300ft; the PA23 was tracking SE'ly, indicating 2300ft. The pilot of the PA23 replied that he was, "*..looking*" and, at 1738:06, transmitted, "*avoiding action [PA23 C/S].*" TAC 3 reports that he believed that the PA23 pilot was requesting avoiding action and replied, "*I'd suggest a left turn heading 0-7-0 degrees.*" The PA23 pilot then advised TAC 3, "*..we've seen him we're just taking avoiding action.*" At the point that TAC 3 offered the avoiding action, the PA28 was 0.8nm SE of the PA23, slightly R of the PA23's 12 o'clock, tracking NW'ly, indicating 2300ft London QNH (1025hPa); the PA23 was tracking SE'ly, indicating 2400ft London QNH (1025hPa). The pilot of the PA23 reported that the RH seat passenger sighted the PA28 first at a range of approximately 400m (0.2nm). The pilot of the PA28 reported that they did not sight the PA23 at any point during the Airprox.

The guidance material in CAP774 Chapter 3 para 5 states that:

'Controllers shall aim to pass information on relevant traffic before the conflicting aircraft is within 5 NM, in order to give the pilot sufficient time to meet his collision avoidance responsibilities and to allow for an update in traffic information if considered necessary'.

This section also states that 'high controller workload and RTF loading may reduce the ability of the controller to pass traffic information, and the timeliness of such information'.

The PA23 pilot's L turn to avoid the PA28 is evident on the radar replay at 1738:12. The CPA occurred at 1738:20 as the PA28 passed 0.3nm SW of the PA23, with both ac indicating co-altitude at 2200ft London QNH (1025hPa). Projecting the tracks of both ac prior to the PA23's turn demonstrated that 0.1nm horizontal separation would have existed at the CPA, had the PA23 pilot not turned to avoid the PA28.

Due to the paucity of available information, it has not been possible to determine whether there was an opportunity for TAC 1 to provide a warning to the pilot of the PA28 on the PA23; however, the implication from the unit's brief analysis is that TAC 1's workload prevented them from providing such a warning.

Given TAC 3's low workload, it is reasonable to argue that an earlier opportunity existed for them to fulfil their requirement within CAP774 to pass TI to the pilot of the PA23 before lateral separation reduced below 5nm. Moreover, the format of the TI passed was not in accordance with CAP413. Importantly, however, the TI succeeded in alerting the pilot of the PA23 to the PA28's presence and facilitated their visual acquisition of the PA28. Furthermore, the controller, believing that the PA23 pilot had requested deconfliction advice against the PA28, provided a sensible course of action to discharge their responsibility to prevent a mid-air collision.

Notwithstanding that the pilot of the PA28 did not acquire the PA23 visually and that the TI passed by TAC 3 to the PA23 crew was later than ideal, the TI was timely enough to alert the PA23's crew and facilitated their ability to 'see and avoid' the PA28.

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

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

The Board were dismayed that ATLAS CONTROL had not ensured that TAC1 contributed a report, nor had the Unit ensured that TAC1's RT frequency and landlines been impounded for the investigation. However, the Board noted that the incident occurred during the first live week of the Olympic airspace restrictions when procedures may have been still bedding down. Given the helpful insight provided by the BM SM report, coupled with the recorded radar data, the Board considered that sufficient information was available to assess this Airprox.

A civilian area controller Member questioned whether the sectorisation of ATLAS CONTROL, which was the ATCRU operating within R112 outwith established CAS, was appropriate as the two ac involved were allocated to different controllers despite their pilots planning virtually reciprocal tracks. The Member thought this unwise and it would have been better to have allocated the two flights to the same controller, minimising any potential requirement for co-ordination. The Board's ASACS Advisor suggested that whilst this would have been the ideal, it was not always feasible. Another controller Member asked if the flight data for the traffic flight-planned through the Olympic airspace was available to other controllers to interrogate in 'real time'. Whilst this was feasible, the Board was told that because the squawk allocation was random and not aligned to the controller operating position providing the ATS, another ATLAS controller would not be able to instantly recognise which ATLAS controller was working which track unless he actively interrogated the flight data. On a slightly different tack, some civilian controller Members wondered if there was a misperception here on the part of GA pilots as to the level of control afforded traffic transiting R112, insofar as this known traffic environment was created for security purposes rather than the provision of an ATS, which remained the normal ATSO-CAS available to pilots in Class G airspace; ATLAS was, in effect, a 'super LARS' unit. Consequently, it was important to stress that 'see and avoid' prevailed in the Class G R112 and it was up to the pilots to state the ATS required; in the scenario assessed here, each pilot was responsible for sighting the other ac, whether TI or a warning was provided or not, and for affording appropriate separation.

The PA28 pilot, under a BS from TAC1, reports that he did not receive any advance warning from the controller on the conflicting PA23 ahead; given the similarity of the indicated transit altitudes of both ac evident on Mode C to both controllers and the geometry of the encounter, the Board agreed a warning would certainly have been justified. However, there was no STCA available to highlight the conflict to the controllers and, for whatever reason, it seems that no warning was forthcoming from TAC1. Nevertheless, the PA28 pilot had a responsibility to sight the PA23 and avoid it as necessary. It was unfortunate that he was unable to do so.

The reporting PA23 pilot had wisely obtained a TS to supplement his lookout and that of his pilot passengers. Nevertheless, the BM SM report suggests that with TAC3's low workload, an earlier opportunity might have existed for the controller to pass TI at a range greater than the 1.9nm it was given and before horizontal separation reduced below 5nm. Nonetheless, having received TI, Members estimated from the timings of his transmissions to TAC3, that the PA23 pilot saw the PA28 no less than 0.8nm away and therefore more than the 300m he had reported. Having seen the PA28, the PA23 pilot then immediately turned L to avoid it, which ensured the two ac passed no closer than 0.3nm abeam the recorded radar data revealed. In these circumstances some Members thought this was a late sighting. However, others recognised that with the two ac approaching head-on, or nearly so, both of small cross-sectional area, with virtually no crossing motion to draw the other pilots attention to it, they would have been equally difficult to spot. So the PA23 pilot, aided by his passengers and the TI given probably saw the PA28 in reasonable time. Whilst not unanimous, an overwhelming majority of the Members concluded that this Airprox had resulted from a conflict in Class G airspace resolved by the PA23 pilot, whose avoiding action had proved wholly effective. This, coupled with the minimum separation evinced by the radar recording, convinced the Board that any Risk of collision had been effectively removed.

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

Cause: A conflict in Class G airspace resolved by the PA23 pilot.

Degree of Risk: C.