## AIRPROX REPORT No 2010025



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE PA23 PILOT** reports enroute to Redhill, VFR and in receipt of a BS from Farnborough on 132.8MHz, squawking 5031 with Modes S and C; PCAS was fitted. The visibility was 20nm in CAVOK VMC and the ac was coloured white/blue/red. Heading 200° at 1900ft QNH 1021mb and 130kt, the pilot seated in RH seat saw, identified and pointed out to him fast-moving traffic, a bronze coloured single-engine low-wing T-tailed ac in his 9 o'clock at the same height. He immediately initiated a dive estimating the other ac passed 50ft above and 100m clear ahead, appearing to continue W'ly uninterrupted. No TA alert was received during the encounter and he assessed the risk as high.

**THE PA28RT PILOT** reports being unaware of being involved in an Airprox until contacted post incident. He was enroute to N Weald, VFR at 1800ft QNH and 120kt and in receipt of a BS from either Southend or N Weald, squawking 7000 with Modes S and C; PCAS was fitted. The Wx was VMC and the ac was coloured brown with strobe lights switched on. In the area of Billericay on a direct track he did not see any conflicting ac and he could not remember receiving a TA.

**THE FARNBOROUGH LARS N CONTROLLER** reports working the combined N and E Sectors in bandboxed configuration and giving the PA23 flight a BS. On his radar he spotted a direct confliction (the traffic was squawking 7000 with Mode C indicating 100ft above the PA23) so he advised the PA23 pilot that he had 'traffic crossing'. The pilot reported visual and the flight was then transferred to the LARS E frequency and issued a new squawk. The PA23 pilot then advised he was filing an Airprox and that the conflicting traffic had crossed within 50ft of his ac and he thought it was a Saratoga type. The conflicting traffic was seen to descend into N Weald and, after speaking to the ATSU, an ac matching the description landed at N Weald and its registration was obtained.

**ATSI** reports that the Airprox occurred in Class G airspace 2.5nm to the WSW of Billericay VRP. Farnborough LARS N and Farnborough LARS E were operating in a combined band-boxed configuration on frequencies 132.8MHz(N) and 123.225MHz(E).

The PA23 was on a VFR flight from Andrewsfield to Redhill. At 1402:40 the PA23 pilot called LARS N and requested a BS, *"PA23 c/s P-A twenty three Apache two P-O-B currently one thousand two hundred feet having just left Andrewsfield en-route to Redhill V-F-R request Flight Information Service* 

Basic Service sorry". The controller acknowledged the call, "PA23 c/s roger squawk five zero three one Q-N-H is one zero two one Basic Service" which was readback correctly.

At 1411:01 the LARS N passed a warning to the PA23, "PA23 c/s your traffic crossing you similar *level*" and the PA23 pilot replied with "Traffic in sight PA23 c/s". At this point radar recordings show the PA23 tracking SSW at an altitude of 1700ft with the unknown aircraft at a distance of 0.4nm crossing from L to R indicating an altitude of 1800ft. At 1411:10, the CPA, radar recordings show the tracks of the 2 ac converging to within less than 0.1nm, with the PA23 now indicating an altitude of 1600ft and the unknown traffic altitude 1800ft. The PA23 flight is then asked to contact the same controller on the LARS E frequency of 123.225MHz. After communication is established at 1411:30 the PA23 pilot is asked to squawk 5024 and the PA23 pilot reads back the squawk and reports an Airprox, "five zero two four we have that's an Airmiss report erm he was about fifty foot over the top of us direct confliction." The PA23 pilot asks the Farnborough controller for contact details on the other traffic. After tracing action the Farnborough controller provides the c/s of the other traffic, a PA28RT inbound to North Weald.

MATS Pt1, Section 1, Chapter 11, Page 4, Para 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'.

MATS Pt1, Section 1, Chapter 11, Page 4, Para 3.5.1 states: 'Pilots should not expect any form of traffic information from a controller, as there is no such obligation placed on the controller under a Basic Service outside an Aerodrome Traffic Zone (ATZ), and the pilot remains responsible for collision avoidance at all times. However, on initial contact the controller may provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller unless the situation has changed markedly, or the pilot requests an update. A controller with access to surveillance derived information shall avoid the routine provision of traffic information on specific aircraft, and a pilot who considers that he requires such a regular flow of specific traffic information shall request a Traffic Service. However, if a controller considers that a definite risk of collision exists, a warning may be issued to the pilot'.

The PA23 pilot was in receipt of a BS from LARS N and the controller, having determined that the unknown traffic was in direct conflict, passed a warning to the pilot of the PA23 who then reported the traffic in sight.

UKAB Note (1): Met Office archive data shows the Southend METAR as EGMC 171350Z 22011KT 9999 FEW049 14/04 Q1021=

UKAB Note (2): The radar recording at 1409:58 shows the subject ac approaching each other on a line of constant bearing, the PA28RT tracking 310° and the PA23 190°. The PA28RT maintains altitude1800ft whilst the PA23 climbs slowly from 1400ft to 1700ft over the course of 1min. The PA23 is seen to descend 100ft at the CPA to altitude 1600ft with vertical separation showing 200ft. The PA23 pilot reported flying at 1900ft and seeing the PA28RT at the same altitude and attaining 50ft vertical separation as the ac pass; Mode C tolerance is  $\pm$  200ft.

## 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.

As this incident occurred in Class G airspace, both pilots were responsible for maintaining their own separation from other ac through 'see and avoid'. Although the PA23 had right of way, this was dependent on the PA28RT pilot seeing the potential confliction, which he didn't and this was a part of

the cause of the Airprox. The PA23 pilot was alerted to the approaching PA28RT by a warning from Farnborough LARS N, a good call, which facilitated his visual acquisition, albeit late, which was the other part of the cause. The opportunity for the pilots to see each other's ac was there for some time prior to the Airprox; however, with the ac approaching on a constant bearing, the conflicting ac would appear as a stationary object within the pilot's field of view making detection more difficult. Moving one's head in the cockpit or altering the ac's flightpath by turning breaks the situation, creating relative movement between ac and an improved opportunity for visual acquisition. There was little time between the ATC warning and the CPA but the PA23 pilot reacted quickly and dived his ac below the PA28RT, which passed 50ft above and 100m ahead. The Board believed that this action had been just enough to remove the actual collision risk but that safety had not been assured as they passed.

Members noted that despite both ac carrying PCAS equipment, neither pilot could recall if any alerts were generated. Both ac's transponders were being interrogated by SSR so the ac's replies should have been captured by the PCAS but, for whatever reason, the conflicting target went either undetected by the equipment or by the pilots.

## PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause</u>: Non-sighting by the PA28RT pilot and a late sighting by the PA23 pilot.

Degree of Risk: B.