

## **AIRPROX REPORT No 2014099**

Date/Time: 26 Jun 2014 1527Z

Position: 5108N 00040W  
(6nm W Gatwick CTA)

Airspace: London FIR (Class: G)

Aircraft 1                      Aircraft 2

Type: C150                      PA28

Operator: Civ Pte              Civ Pte

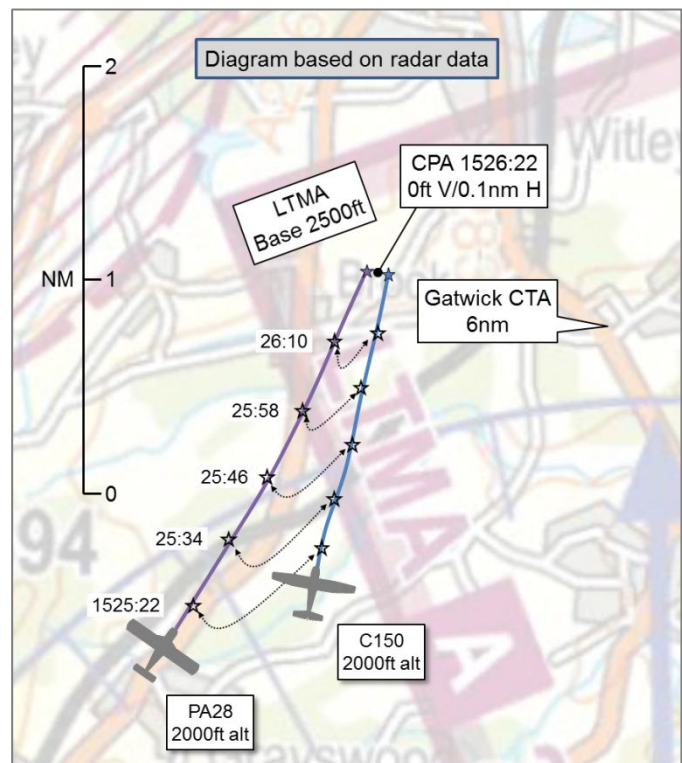
Alt/FL: 1800ft                    2200ft  
            QNH (1013hPa)          QNH (1014hPa)

Conditions: VMC                      VMC

Visibility: >10km                    >10km

Reported Separation:  
   20ft V/70ft H              300ft V/1000m H

Recorded Separation:  
   0ft V/0.1nm H



## **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE C150 PILOT** reports returning from Goodwood to his home airfield. The light and dark blue aircraft had navigation lights and beacon selected on, as was the SSR transponder with Modes A, C and S. The aircraft was not fitted with an ACAS or TAS. The pilot was operating under VFR, in VMC, in receipt of a Basic Service from Farnborough LARS(W). The pilot stated that he had seen the PA28 takeoff from Goodwood earlier in the afternoon, and that he and his passenger took off about 30min later. At about 1520, they heard the PA28 pilot on the Farnborough LARS(W) frequency, inbound to his home airfield, so they knew it was in the same area but could not see it. At around 1530, heading 020° and straight-and-level at 80kt, it overtook them, about 2-wingspans away, in their left 9 o'clock position at what seemed about 20ft above. The registration was clearly readable. The pilot noted that, being in a high wing aircraft, had he decided to turn left just as the other aircraft was overtaking it would have been in his blind spot behind the wing and there would have been a high risk of collision. As it flew parallel to and faster than them the situation improved immediately, although being only slightly faster, this did take a few seconds.

He assessed the risk of collision as 'Medium'.

**THE PA28 PILOT** reports returning from Goodwood to his home airfield [not the same airfield as the C150 pilot]. The white and blue aircraft had strobe lights selected on, as was the SSR transponder with Modes A and C. The aircraft was not fitted with an ACAS or TAS. The pilot was operating under VFR, in VMC, in receipt of a Basic Service from Farnborough LARS(W). Many aircraft had been departing Goodwood from the Festival of Speed, the majority of which had been receiving a Basic Service from Farnborough. Neither passenger in his aircraft were licensed pilots, but had been briefed to provide extra lookout for other aircraft during the transit. Weather conditions had been very good, visibility was greater than 10km, and the pilot remained well clear of cloud. The C150 was identified abeam the MID VOR, flying about 300-500ft below their level, around 3nm to 5nm ahead of them, and initially at a distance of greater than 1nm to their right-hand side. The PA28 pilot assessed his speed to be 20-30kt greater, and they closed 'fairly quickly'. Both aircraft had constant and steady tracks and levels. The pilot believed he identified the C150 from Farnborough Radar R/T as routing to [the C150 home airfield]. After initial consideration he decided to maintain track to pass the C150 to its left side. He rejected passing to its right side as it would require a turn towards the Gatwick CTA and would result in both aircraft coming closer, his much higher speed also being a factor in his decision making. Both he and the front-seat passenger maintained a careful and good lookout as

they overtook the C150 and ensured adequate horizontal separation. Neither aircraft received a traffic advisory from Farnborough Radar and Farnborough radio traffic was 'fairly minimal' at that point of the flight. At no point did the PA28 pilot feel the conduct of the flight or the relative position to the C150 constituted an Airprox.

He assessed the risk of collision as 'None'.

## Factual Background

The weather at Farnborough was recorded as follows:

METAR EGLF 261520Z 15007KT 110V200 9999 FEW047 20/10 1013=

## Analysis and Investigation

### CAA ATSI

Both pilots were operating under VFR in receipt of a Basic Service from Farnborough LARS(W).

ATSI had access to Farnborough RTF and area radar recording, together with the written report from the C150 pilot. The Airprox was not reported to Farnborough and the controller had no recollection of the event.

The Farnborough controller's workload was assessed as medium with a very busy frequency. At 1513:37, the C150 pilot was one of three pilots who called Farnborough LARS (W) at the same time. The C150 pilot reported three miles north of Goodwood, en-route to his home airfield, and requested a Basic Service. The controller passed the QNH of 1014hPa and agreed a Basic Service, allocating a squawk of 0460.

At 1517:48, the PA28 pilot contacted Farnborough, reported at 2200ft en-route from Goodwood to his home airfield and requested a Basic Service. The Farnborough controller agreed a Basic Service and allocated a squawk of 0450.

At 1521:26, the horizontal distance between the two aircraft was 4.9nm, see Figure 1.

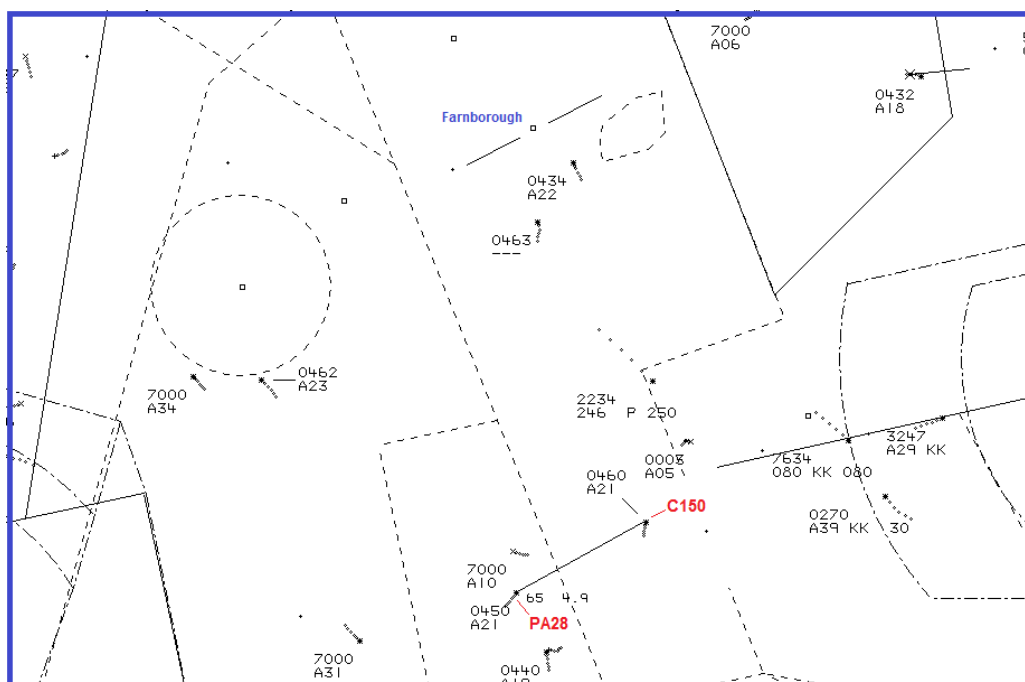


Figure 1: Swanwick MRT at 1521:26

At 1524:22, the C150 pilot completed a right-hand orbit and the lateral distance between the aircraft reduced to 2.5nm. The two aircraft then began to converge with the groundspeed of the PA28 being 20kt greater than that of the C150. At 1525:08, the lateral distance between the aircraft was 0.8nm, see Figure 2.

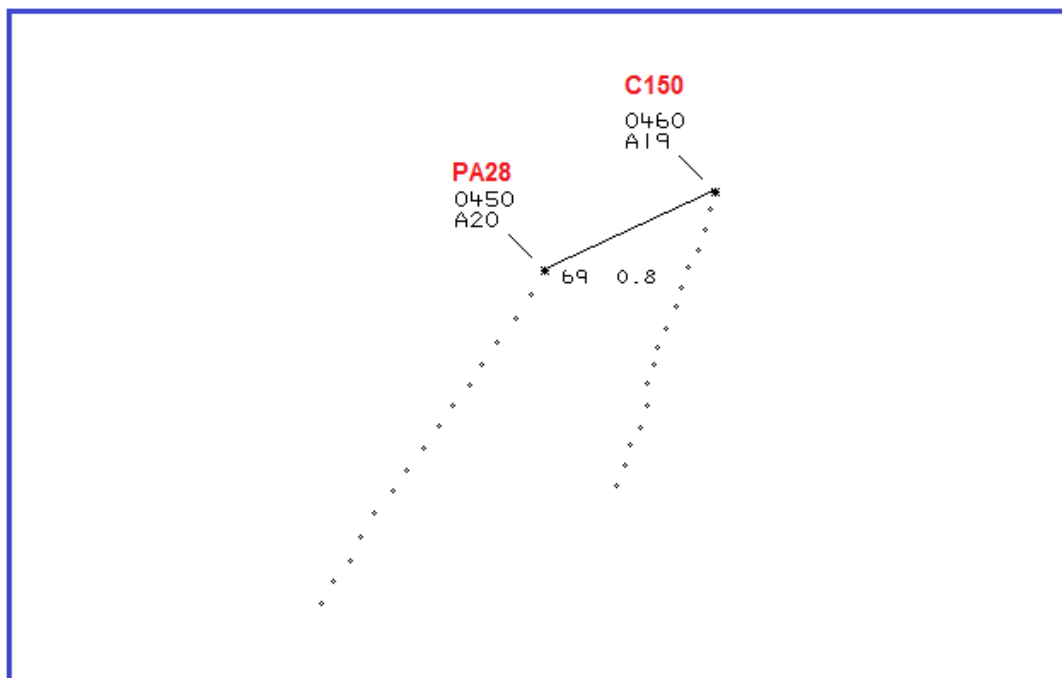


Figure 2: Swanwick MRT at 1525:08

The PA28 continued to overhaul the C150 and, at 1526:22, it passed 0.1nm west of the C150 at the same level, see Figure 3.

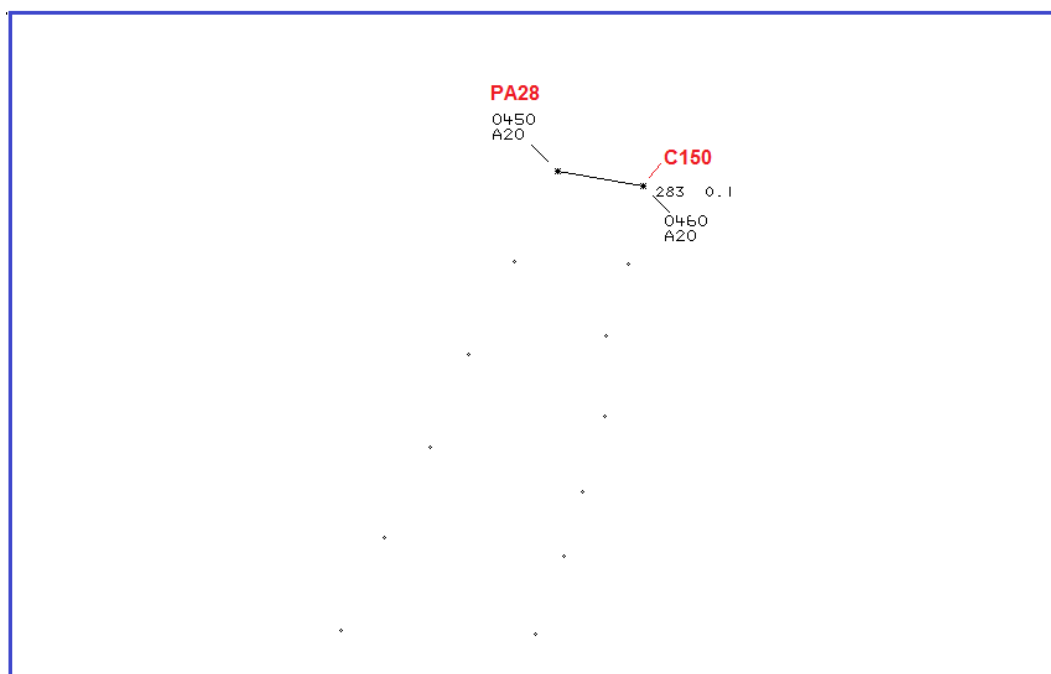


Figure 3: Swanwick MRT at 1526:22

By 1526:38, the PA28 was 0.1nm ahead of the C150 and pulling away ahead, see Figure 4.

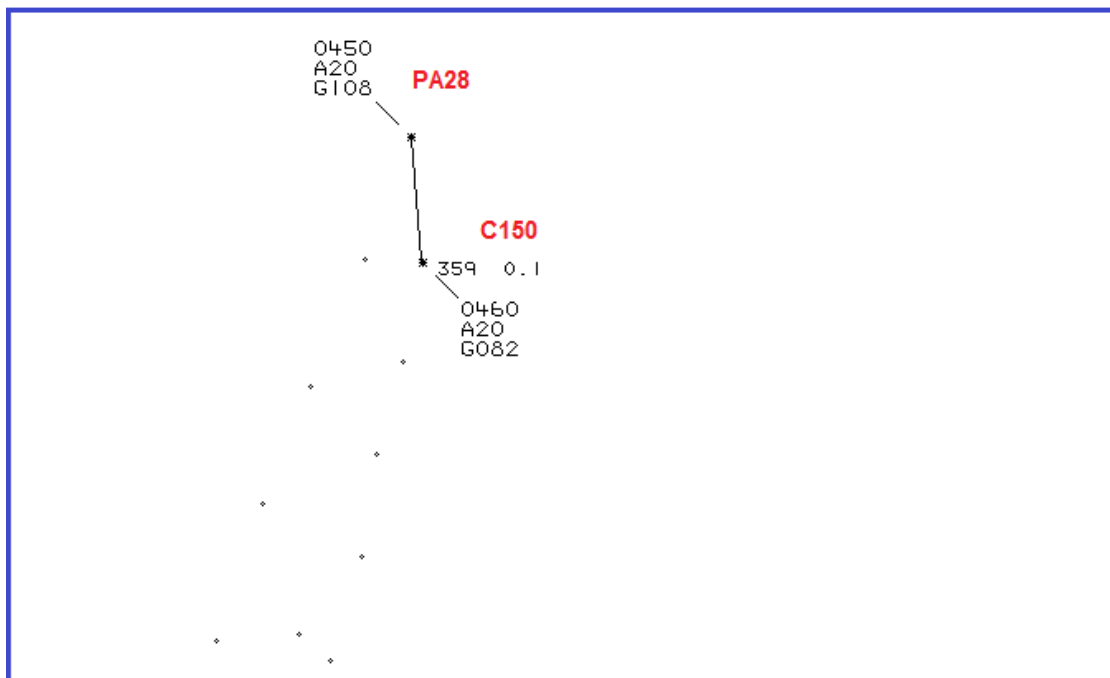


Figure 4: Swanwick MRT at 1526:38

Both pilots had requested and agreed a Basic Service from Farnborough LARS(W). CAP 774, Chapter 2, Paragraph 2.5, states that pilots should not expect any form of traffic information as there is no obligation placed on the controller and the pilot remains responsible for collision avoidance at all times. If a controller considers that a definite risk of collision exists a warning may be issued to the pilot, however the controller's workload was assessed as medium with a busy frequency and there was no requirement for the controller to monitor the flight.

### UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision<sup>1</sup>. The C150 pilot had right of way, and the PA28 pilot was required to keep out of the way of the other aircraft by altering course to the right<sup>2</sup>. The PA28 pilot was also required to avoid passing over or under the other aircraft, or cross ahead of it, unless passing well clear of it<sup>1</sup>. The allowable SSR transponder altitude error is +/- 200ft.

### Summary

An Airprox was reported when a Cessna C150 and a Piper PA28 flew into proximity at 1526 on Thursday 26<sup>th</sup> June 2014 at a position 6nm west of the Gatwick CTA (base 1500ft) and 10nm west of the Gatwick CTR. Both pilots were operating under VFR in VMC.

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

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authority.

Board members first considered the pilots' actions. They noted that the PA28 pilot had taken-off before the C150 pilot and flew to the south and west of Goodwood before subsequently turning towards his home airfield. The C150 pilot took-off some 30min later and took up a track just east of north. The PA28 pilot, with a higher groundspeed, began to catch up with the C150 and he saw the C150 at a reported range of 3-5nm. Radar replay indicated that the C150 pilot had completed a right

<sup>1</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

<sup>2</sup> *ibid.*, Rule 11 (Overtaking).

hand orbit 2min before CPA, probably just before the PA28 pilot saw his aircraft (the PA28 pilot reported seeing the C150 when both aircraft had 'constant and steady tracks and levels').

The Board further noted that the PA28 pilot had decided to overtake on the left hand side because he thought that a turn to the right would result in 'both aircraft coming closer'. Although Board members opined that Rule 11 (Overtaking) of the Rules of the Air may be considered somewhat ambiguous in that there was no angular definition of what constituted 'overtaking' as opposed to 'converging' from a rear quadrant, in this instance it was clear from the radar replay that the PA28 pilot was overtaking the C150, and that he was under an obligation to do so correctly. In the Board's opinion, the PA28 pilot had seen the C150 in sufficient time, and with sufficient space, to either manoeuvre to the right and pass clear of it whilst overtaking, manoeuvre further to the left and pass well clear, or climb or descend to pass clear vertically as well; in short, any course of action other than the one he chose. Board members were unable to understand the rationale as to why he overtook on the left, passing abeam the C150 at the same altitude and at close range (about 0.1nm - 185m). In the process of doing so, he passed close enough to the C150 to cause its pilot entirely justifiable concern. Notwithstanding, although many members were of the opinion that safety had been much reduced below the normal as a result, the majority agreed that, because the PA28 pilot clearly had the C150 in sight there was no risk of collision (albeit the PA28 pilot could not have known whether the C150 pilot might have chosen to turn left, towards his destination, as he overtook). The Board therefore classified the risk as Category C.

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

Cause: The PA28 pilot flew close enough to cause the C150 pilot concern.

Degree of Risk: C.

ERC Score<sup>3</sup>: 4.

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<sup>3</sup> 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.