

AIRPROX REPORT No 2013173

Date/Time: 7 Dec 2013 1104Z (Saturday)

Position: 5148N 00053W
(5.8nm W Halton)

Airspace: Lon FIR (Class: G)

Aircraft 1 Aircraft 2

Type: Vigilant PA28

Operator: HQ Air (Trg) Civ Pte

Alt/FL: 2000ft 2200ft
 agl (NK hPa) QNH (1027hPa)

Conditions: VMC VMC

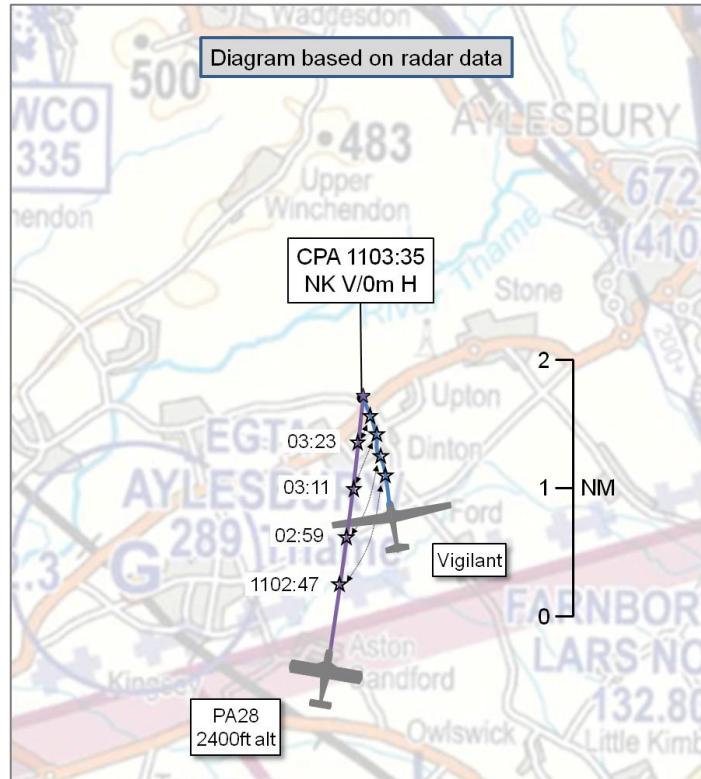
Visibility: 20km 30nm

Reported Separation:

 30ft V/0m H 25ft V/0m H

Recorded Separation:

 NK V/0nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE VIGILANT PILOT reports conducting an instructional sortie. The white and 'day-glo orange' aircraft's lighting state was not reported. The SSR transponder was selected on with Mode A only¹. The aircraft was not fitted with a TAS or an ACAS. The pilot was operating under VFR in VMC, in receipt of an A/G Service from Halton Radio. At a position 4nm west of Aylesbury, heading 300° at 60kt in level cruise at 2000ft agl, a PA28 flew directly over the top of his aircraft from behind, without warning and with 20-40ft vertical separation. The Vigilant pilot stated that the direction of travel of the PA28 gave no opportunity for avoiding action to be taken.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports in straight-and-level cruise. The white and yellow aircraft had navigation, strobe and beacon lights selected on, as was the SSR with Modes A, C and S. The aircraft was not fitted with a TAS or ACAS. The pilot was operating under VFR in VMC, in receipt of a Basic Service from Farnborough LARS(N). He was level at altitude 2200ft, heading 008° at 120kt with autopilot heading mode and altitude hold engaged, with good visibility to the north and a clear sky. He checked his chart prior to climbing to altitude 3400ft having passed the west corner of the London TMA (base 3500ft). As he spoke to his passenger, to inform him of the intended climb, they both saw a red and white low-wing single-engine aircraft pass 20-30ft below from their right rear quarter. There was no time to take any avoiding action as the aircraft passed quickly to their left, on an approximately north-west heading. The pilot stated that he discussed filing an Airprox with his passenger but that they decided to put the incident 'down to experience' and not file, albeit it was a very close call.

He assessed the risk of collision as 'Extremely High'.

Factual Background

The weather at Luton was recorded as follows:

METAR EGGW 071050Z 26010KT 9999 BKN045 08/05 Q1026

¹ The Vigilant SSR transponder is not equipped with Modes C and S.

Analysis and Investigation

CAA ATSI

CAA ATSI had access to the Farnborough RTF and area radar recording, together with the written reports from the Vigilant and PA28 pilots. The incident occurred at 1103:35, 5.8nm to the west of Halton airfield, within Class G airspace, between a Grob Vigilant T1 and Piper PA28-181 Cherokee Archer II. The Vigilant pilot was operating on a VFR local training flight from RAF Halton and was in communication with Halton Radio. The PA28 pilot was operating on a VFR flight and was in receipt of a Basic Service from Farnborough LARS(N). An Airprox was not reported to Farnborough and therefore there was no report from the Farnborough controller. When asked, the controller had no recollection of the event.

At 1100:02, the PA28 pilot contacted Farnborough and a Basic Service was agreed. The PA28 pilot was instructed to squawk 5032 and was passed the London QNH (1027hPa). At 1100:23, the Vigilant was 5nm southwest of Halton airfield, displaying the SSR conspicuity code 7010 (aircraft operating in an Aerodrome Traffic Pattern), without Mode C level reporting. The PA28 was 4.2nm south-southwest of the Vigilant at an altitude of 2400ft, see Figure 1.

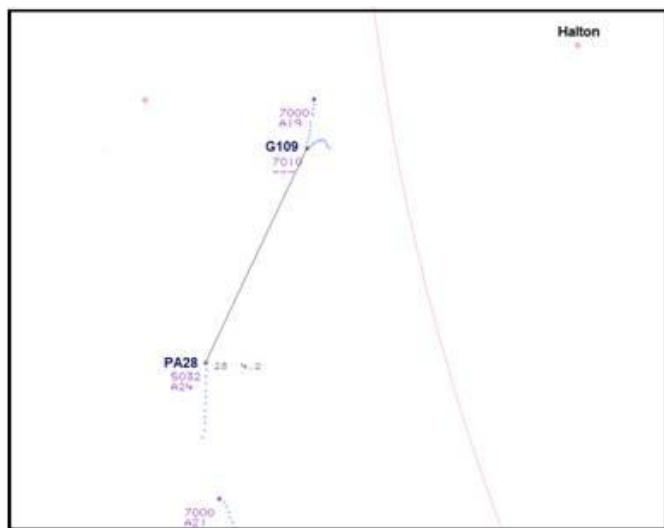


Figure 1: Swanwick MRT at 1100:23

At 1101:05, the Vigilant pilot turned onto a northerly track. The groundspeed of the Vigilant was 54kt and of the PA28 was 114kt. At 1101:50, the distance between the two aircraft was 2.3nm, see Figure 2.

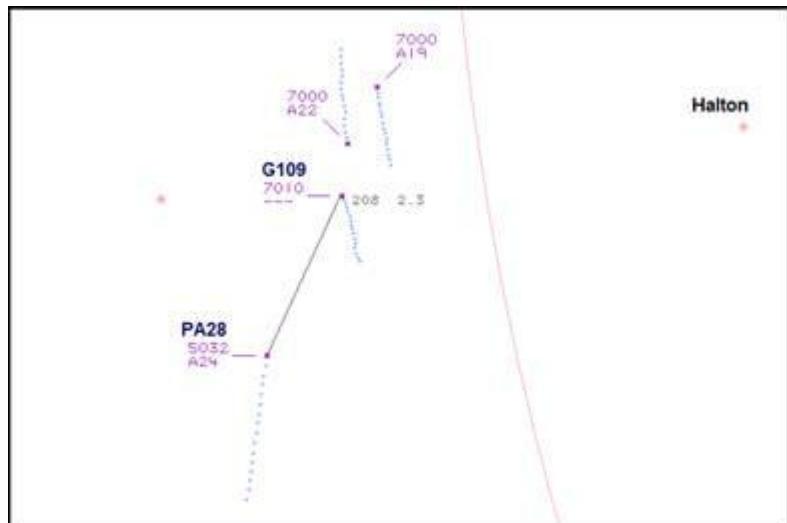


Figure 2: Swanwick MRT at 1101:50

At 1103:31, the distance between the two aircraft was 0.1nm as they continued to converge on northerly tracks, see Figure 3.

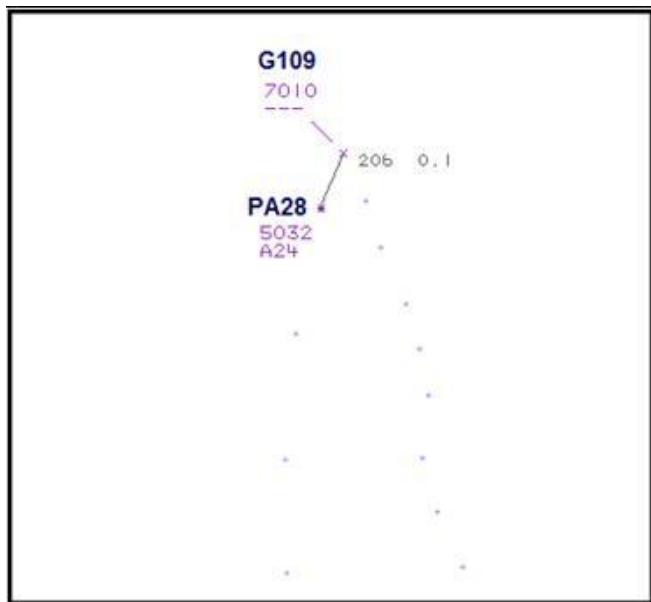


Figure 3: Swanwick MRT at 1103:31

The CPA is estimated to have occurred between radar updates at 1103:34. On the next update, at 1103:35, the PA28 is shown less than 0.1nm ahead of the Vigilant, see Figure 4.

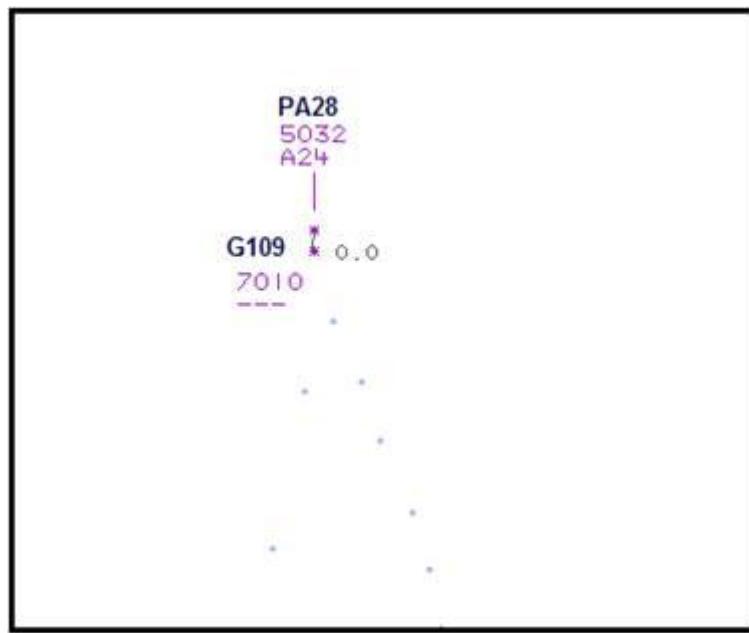


Figure 4: Swanwick MRT at 1103:35

The PA28 pilot did not make any transmissions regarding the sighting or proximity of another aircraft. The Farnborough controller was not aware that an Airprox had occurred.

The PA28 pilot was in receipt of a Basic Service. CAP774, Chapter 2, paragraph 2.2 and 2.5, 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.

Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.

'Pilots should not expect any form of traffic information from a controller/FISO, as there is no such obligation placed on the controller/FISO under a Basic Service, and the pilot remains responsible for collision avoidance at all times...'

...However, if a controller/ FISO considers that a definite risk of collision exists, a warning may be issued to the pilot.

The Farnborough controller was not required to monitor the flight of the PA28 and was not aware of the Vigilant.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance² and the Vigilant pilot had right of way³. Subsequent conversation with the PA28 pilot established that he regularly flew this route and usually requested a Traffic Service. On this occasion the Farnborough tape transcript showed that he had been offered, and accepted, a Basic Service.

Comments

HQ Air Command

This incident serves as a stark reminder of the indispensability of effective lookout, particularly in areas of high traffic density or within 'choke points'. When flying close to glider sites this becomes especially important as gliders are notoriously difficult to see. Additionally, a Traffic Service *may* have been available but since it was not offered by the Farnborough controller on initial contact, and the PA28 pilot accepted a Basic Service, then a possible mitigation could have been missed. All glider pilots should be aware of the 'threat from behind' of faster moving traffic and apportion lookout considerations accordingly. It is disappointing that the PA28 pilot discussed the submission of an Airprox report but discounted it; a reporting culture is highly encouraged in order that all aviators may learn from the experiences of others.

Summary

A Vigilant and a PA28 flew into proximity at 1104 on 7th December 2013 near Thame. Both pilots were operating under VFR in VMC in Class G airspace, the Vigilant pilot in receipt of an A/G Service from RAF Halton and the PA28 pilot in receipt of a Basic Service from Farnborough LARS(N).

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings and reports from the appropriate ATC and operating authorities.

The Board first considered the actions of the PA28 pilot, who was conducting a regular transit through a busy piece of airspace and was in receipt of a Basic Service. There is anecdotal evidence that pilots sometimes do not request a surveillance based service on the basis that they might not receive one; the Board felt that the PA28 pilot might have been better served by a Traffic Service to aid his lookout given that this was busy airspace. They noted that, to his credit, he normally did ask for such

² Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions)

³ ibid., Rule 11 (Overtaking)

a service for this routing; however, on this occasion, his acceptance of the offered Basic Service was not ideal. Notwithstanding, it was equally acknowledged that the pilot was ultimately responsible for collision avoidance and that 'see and avoid' was the means of achieving that.

The Board also discussed the fact that the Vigilant pilot was equally responsible for collision avoidance and, given the fact that the PA28 had approached from behind, may also have benefited from a surveillance based service (although this would have to be weighed against the requirement for increased 'patter' in an instructional sortie).

In the event, neither pilot saw the other before CPA. The Vigilant is not fitted with Mode C, so a Mode C derived altitude was not available from radar recordings; however, both pilots had provided a similar estimate of vertical separation of about 30ft. In light of this, the Board was satisfied that the situation had only just stopped short of an actual collision, that separation had been reduced to the minimum and that chance had played a major part in events.

The Board also commented on the PA28 pilot's decision not to file an Airprox. The Board emphasised that there were no separation criteria for filing an Airprox and, in this instance, they were unanimous in their opinion that an Airprox report was justified within the ICAO criteria for filing:

An Airprox is a situation in which, in the opinion of a pilot or air traffic services personnel, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved may have been compromised.

In the interests of air safety, the Board encouraged all pilots and controllers to consider reporting if in any doubt. All reports are dis-identified, and there is no stigma attached in any way to the actions of those involved; the aim is merely to enable all to benefit by learning from the experiences of others.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A non-sighting by both pilots.

Degree of Risk: A.

ERC Score⁴: 100

⁴ 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.