

AIRPROX REPORT No 2013077

Date/Time: 17 Jul 2013 0936Z

Position: 5203N 00014W
(2.7nm NE RAF Henlow)

Airspace: Lon FIR (Class: G)
Reporting Ac Reported Ac

Type: Vigilant T1 PA28

Operator: HQ Air (Trg) Civ Pte

Alt/FL: 2500ft 2500ft
QFE (1019hPa) QNH (NK)

Weather: VMC HAZE VMC CLBC

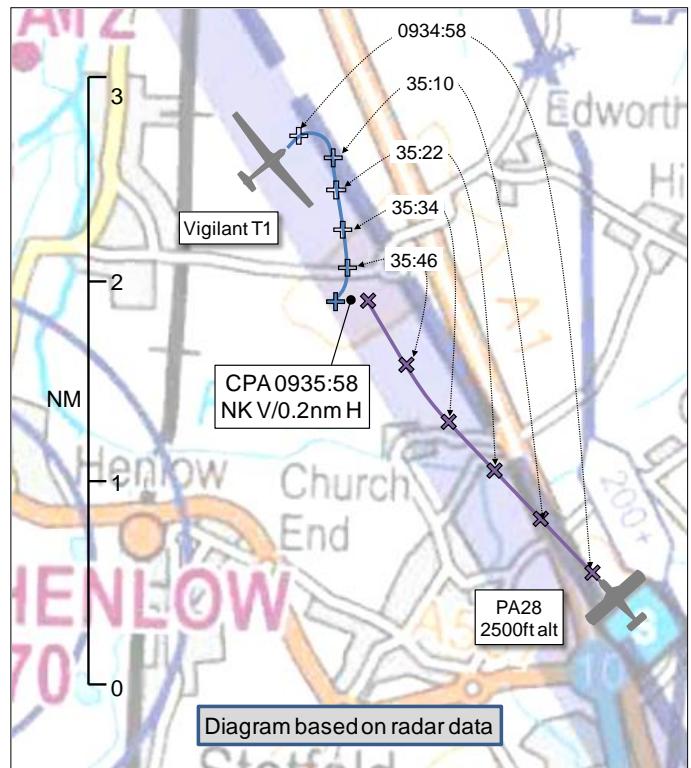
Visibility: 8km 10km

Reported Separation:

0ft V/0.5nm H Not Seen

Recorded Separation:

NK V/0.2nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE VIGILANT PILOT reports conducting an instructional sortie, seated in the RH seat. The white and 'day-glow' orange aircraft had landing, navigation and strobe lights selected on, as was the SSR transponder with Mode A. The aircraft was not fitted with an ACAS. The pilot was operating under VFR in VMC without an ATS with Henlow A/G RTF selected. Approximately 3nm S of Biggleswade and 2nm to the E of Henlow, heading S at 60kt in level flight, he saw an aircraft approaching from the 12 o'clock position. He made a steep turn to the R, in order to avoid a collision; the PA 28 pilot did not appear to take any avoiding action. He noted that the haze made it difficult to see the other aircraft.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports conducting a transit. The red and white aircraft had the SSR transponder selected on with Modes A, C and S; the lighting state was not reported. The aircraft was not fitted with an ACAS. Both the pilot and his passenger, also a PPL holder, were operating under VFR in VMC without an ATS, 'listening to Luton'. He was transiting on a heading of 320°, in the level cruise at 110kt and altitude 2500ft, outside CAS and in 'very adequate visibility'. Neither he nor his passenger were aware of an Airprox until contacted after the event and asked to complete an Airprox form.

Factual Background

The weather at Luton was recorded as follows:

METAR EGGW 170920Z VRB02KT 9000 NSC 24/15 Q1025
METAR EGGW 170950Z VRB03KT CAVOK 25/15 Q1025

Analysis and Investigation

UKAB Secretariat

Both pilots were equally responsible for collision avoidance¹. From the geometry of the encounter, it was apparent that they were required to alter course to the right if there was a danger of collision², which was the avoiding action the Vigilant pilot took. Neither pilot was in receipt of an ATS. The PA28 pilot did not see the Vigilant and did not recall being involved in an Airprox.

HQ Air Command

The Vigilant pilot saw and avoided the conflicting PA28 and correctly highlighted the point that the geometry was a significant factor in delaying his visual acquisition, both due to the lack of any lateral movement and the fact that the PA28 was almost head-on. The sighting range was reasonable in these circumstances. The Vigilant fleet often operate in areas where no radar services are available, or where a service is not compatible with the instructional nature of the majority of their sorties. The upcoming fitment of PowerFLARM³ to the fleet should provide advanced warning of the approach of other transponding ac, and highlight the location of conflicting FLARM-equipped ac.

Summary

A Vigilant T1 and a PA28 flew into conflict at 0936 on 17th July 2013. The Vigilant pilot took avoiding action; the PA28 pilot did not see the Vigilant.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac and a radar video recording.

The Board first considered the pilots' actions. They were both operating in Class G airspace under VFR and without an ATS. The Vigilant pilot achieved collision avoidance by manoeuvring to the right when he saw the PA28. The PA28 pilot did not recall seeing the Vigilant, although Board members opined that it was 'there to be seen'. Planning to route around glider sites was considered a valuable factor to mitigate against mid-air collision, but should also be coupled with added lookout for gliders, motor gliders and tugs, both on the ground and in the air. Members were of the opinion that the incident occurred at a position where both pilots could have availed themselves of the proven benefit of an ATS.

The Board concluded that the cause of the Airprox was a non-sighting by the PA28 pilot but that effective, albeit late, action was taken by the Vigilant pilot and that safety margins had not been significantly reduced.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A non-sighting by the PA28 pilot.

Degree of Risk: C.

ERC Score⁴: 4

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

² Rules of the Air 2007 (as amended), Rule 10 (Approaching head-on).

³ PowerFLARM is a traffic warning system, developed from FLARM (Flight Alarm). In addition to other FLARM and PowerFLARM equipped aircraft, it can also detect and warn against aircraft fitted with SSR transponders with Mode C or S selected or emitting an 'ADS-B out' signal.

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.