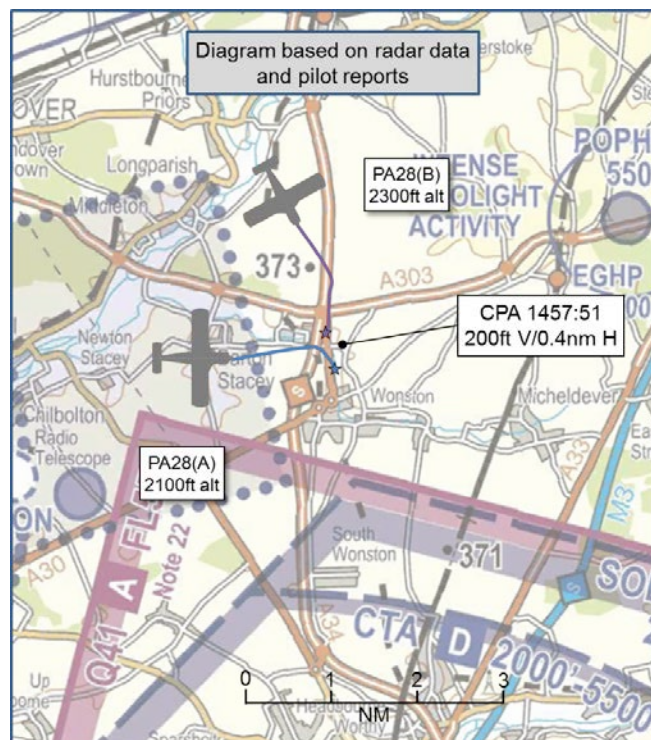


AIRPROX REPORT No 2016080

Date: 07 May 2016 Time: 1458Z Position: 5110N 00120W Location: 3nm E Chilbolton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------------|-----------------|-------------------------------|
| Aircraft | PA28(A) | PA28(B) |
| Operator | Civ Trg | Civ Club |
| Airspace | London FIR | London FIR |
| Class | G | G |
| Rules | VFR | VFR |
| Service | None | Basic |
| Provider | | Farnborough |
| Altitude/FL | 2100ft | 2300ft |
| Transponder | A,C | A,C,S |
| Reported | | |
| Colours | White | White |
| Lighting | NK | Strobes, beacon, nav, landing |
| Conditions | VMC | VMC |
| Visibility | >10km | >10km |
| Altitude/FL | 1900ft | 2000ft |
| Altimeter | QNH (1006hPa) | QNH |
| Heading | 090° | 200° |
| Speed | 95kt | 70kt |
| ACAS/TAS | Not fitted | Not fitted |
| Separation | | |
| Reported | Nil V/50m H | 300ft V/200m H |
| Recorded | 200ft V/0.4nm H | |



THE PIPER PA28(A) PILOT reports that he was instructing a student as he carried out an uneventful flight until east abeam Bossington when Solent Radar became very busy as he approached Chilbolton turning point. He experienced high workload: assisting his student to establish their position; complying with Solent Radar's request to change to Farnborough Radar; and taking longer than expected to identify Ockham (OCK) VOR due combination of long range (38 DME) and low altitude of 1900ft. Approximately 2 mins after turning at Chilbolton at 1455, with the student flying and his own 'eyes down' to identify OCK VOR and establish a radial and DME distance before calling Farnborough, he received a verbal warning from the student and an observer (a qualified PPL passenger) that an aircraft was to their left. He looked over his left shoulder and sighted the aircraft which was closely proximate (50m). He took control and turned right onto a south-easterly heading (approximately 120°), losing sight of the aircraft.

He assessed the risk of collision as 'High'.

THE PIPER PA28(B) PILOT reports that he was routing through a narrow channel between airspaces and so could not move left/right. He observed a PA28 at a range of 3nm and maintained visual contact with the other traffic at all times. He slowed down in order to maintain/increase distance (the other aircraft was faster).

He assessed the risk of collision as 'None'.

Factual Background

The weather at Southampton was recorded as follows:

EGHI 071450Z 15010KT 100V200 9999 FEW045 FEW047TCU 18/10 Q1005=

Analysis and Investigation

CAA ATSI

Neither aircraft was positively identified on the radar replay, however the RAF Radar Analysis Cell (RAC) obtained information from Southampton and Farnborough ATC which identified the subject aircraft as having been allocated the transponder codes observed in that area at the time of the Airprox report. PA28(A) was transponding 3660, although its pilot was no longer in contact with an ATC unit, and PA28(B) was transponding 0432. PA28(B)'s pilot had been given a Traffic Service on initial contact with Farnborough Radar, with reduced Traffic Information due to traffic intensity, this was later changed to a Basic Service before the time of the Airprox as Farnborough was losing radar contact with the aircraft due to its range from the radar.

At 1457:34 PA28(A) was observed making a right turn from an east-north-easterly track onto a south-easterly track, with PA28(B) tracking towards it (Figure 1).

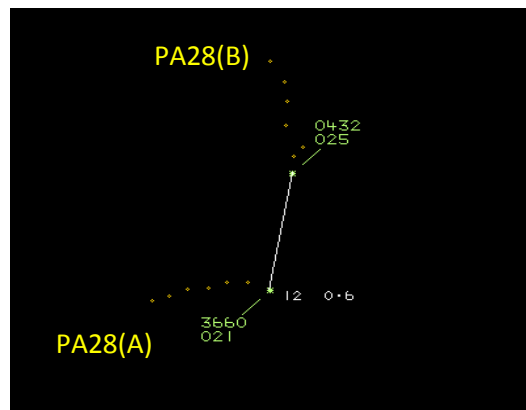


Figure 1 – Swanwick MRT - 1457:34.

The only measurable CPA during this period was at 1457:56 when the aircraft were 0.4nm laterally and 200ft vertically apart, at which point PA28(A) was observed making a further right turn onto a south south-easterly track (Figure 2).

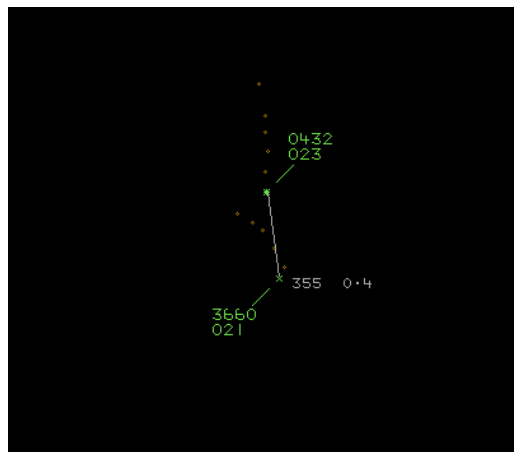


Figure 2 – Swanwick MRT – 1457:56.

PA28(B) then followed PA28(A) in trail with separation constantly increasing until PA28(B) disappeared from radar (Figure 3).

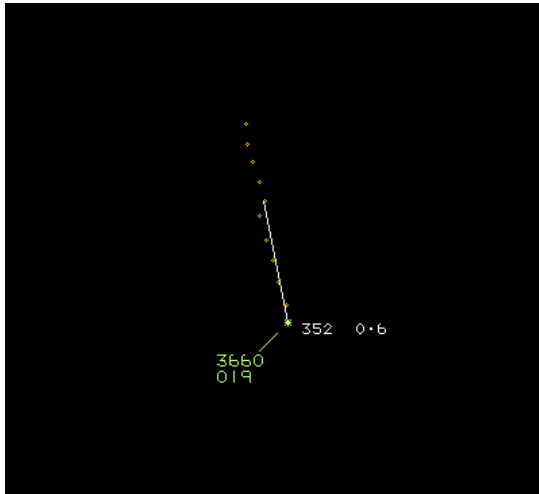


Figure 3 – Swanwick MRT - 1458:15.

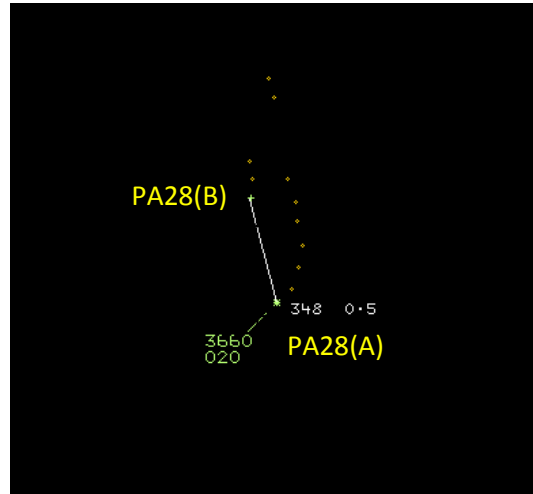


Figure 4 – Swanwick MRT – 1458:30.

At 1458:30 PA28(A) was observed in another right-turn onto a south-westerly track. Coincidentally, a primary radar contact appeared 0.5nm to the north of PA28(A) maintaining a southerly track, (Figure 4) but which disappeared a few seconds later.

UKAB Secretariat

The PA28(A) and PA28(B) pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as converging then PA28(B) pilot was required to give way to PA28(A), which he did.

Summary

An Airprox was reported when PA28(A) and PA28(B) flew into proximity at 1458 on Saturday 7th May 2016. Both pilots were operating under VFR in VMC, the PA28(B) pilot was in receipt of a Basic Service from Farnborough, the PA28(A) pilot was in the process of changing frequency from Solent to Farnborough Radar, but had not made contact at the time of the Airprox. PA28(B)'s pilot reported seeing PA28(A) at 3nm and kept visual contact. PA28(A)'s pilot reported observing PA28(B) 50m behind on his left and turned away. Minimum separation recorded was 200ft vertically and 0.4nm horizontally.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from both pilots, area radar and RTF recordings and reports from the appropriate ATC and operating authorities.

The Board noted that both pilots had been operating under VFR in VMC in Class G airspace and that neither pilot had been in receipt of a Radar Service at the time of the Airprox: the pilot of PA28(A) had been switching between Solent Radar and Farnborough LARS; and the pilot of PA28(B) had been in receipt of a Traffic Service from Farnborough but this had been reduced to a Basic Service because the aircraft had flown outside the coverage of Farnborough's radar. Members opined that, although he would have

¹ SERA.3205 Proximity.

probably also have been unlikely to receive a radar service at that range and height, it had been unfortunate that PA28(A)'s pilot had not contacted Farnborough as he turned at Chilbolton towards Farnborough because, subject to workload, the controller may have been able to inform the pilots about each other even without radar contact based on their position reports. The Board noted that neither aircraft had been equipped with any form of collision avoidance system and agreed that, in such circumstances, the only safety barrier left was that of keeping a good look-out to be able to 'see-and-avoid'.

Members noted that PA28(B)'s pilot was required to give way to PA28(A) and, in doing so; the pilot of PA28(B) had chosen to reduce speed. GA members commented that pilots often seemed reluctant to use the vertical plane to effect separation, and that by simply climbing or descending (noting the adjacent airspace near the incident), this incident would have been much less concerning to the other pilot.

The Board noted that the pilot of PA28(A) had reported 'eyes down' just prior to the Airprox, and that his student and another qualified PPL pilot had suddenly warned him of an aircraft close to them on the left. He had taken control and turned away from the other aircraft, commenting that the other traffic had been about 50m away. The Board could not reconcile this distance with the recording that showed the minimum lateral separation of 0.4nm, steadily increasing thereafter. Even accepting that the radar resolution was in the order of 0.1nm, it was thought possible that the PA28(A) pilot may have misjudged the separation as a result of being startled by the sudden observation of the other traffic. However, there remained an element of doubt in the Board's mind given the PA28(A) pilot's estimate of much closer separation.

After much discussion about how close the aircraft might actually have been, the Board decided that the incident was probably best described simply as one where the PA28(A) pilot had been concerned by the proximity of PA28(B) as the cause of the Airprox. Turning to the risk, members noted that the PA28(B) pilot had been visual with PA28(A) at a reported range of 3nm, and had taken action to give way to it. This action was considered appropriate for aircraft operating in Class G airspace to prevent a risk of a collision. Consequently, because they judged that normal safety standards had probably pertained, the Board decided that the Airprox should be categorised as risk Category E.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The PA28(A) pilot was concerned by the proximity of PA28(B).

Degree of Risk: E.