

AIRPROX REPORT No 2014053

Date/Time: 30 Apr 2014 1545Z

Position: 5145N 00051W
(8nm NE Benson)

Airspace: Lon FIR (Class: G)

Aircraft 1 Aircraft 2

Type: Merlin PA28

Operator: HQ JHC Civ Trg

Alt/FL: 2000ft 2200ft
QNH

Conditions: VMC VMC

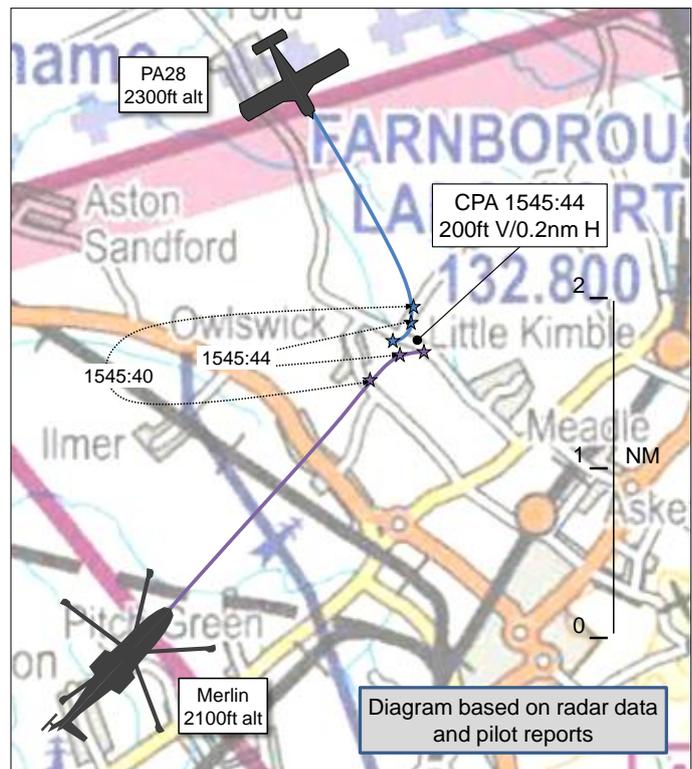
Visibility: >10k >10k

Reported Separation:

200ft V/500ft H 100ft V/200m H

Recorded Separation:

200ft V/0.2nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE MERLIN PILOT reports flying a green aircraft with all lights illuminated and transponder Modes 3A, C and S selected. Whilst transiting north of Benson and receiving a Basic Service from Benson ATC, the controller provided Traffic Information on traffic to the north of the Merlin's position. The crew looked out and a fixed-wing aircraft was spotted. The non-handling pilot then switched frequency to Luton Radar. The fixed-wing aircraft was tracking very slowly from left to right in the windscreen and was assessed as being on a constant bearing. Being on the right of the fixed-wing aircraft, the crew expected it to give way to them and to turn behind. However, no adjustment to the fixed-wing's course was noted, and a decision was made to turn left and go behind it instead. At the same time as the left turn was initiated, the light aircraft broke right towards the Merlin. An evasive right break and descent was immediately conducted by the Merlin HP, and the other aircraft passed high and to the left.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports flying a predominately white aircraft with strobes and landing light on and transponder modes 3A and C selected. He was flying on a solo nav-ex and receiving a Basic Service from Farnborough LARS North. He briefly went off frequency, with the knowledge of the controller, to give Turwestern a courtesy call as he turned in their overhead. When in the vicinity of Princes Risborough, he saw a helicopter in his 3 o'clock, on a converging path and at a similar height. He immediately executed a turn to the right to give way to the other aircraft. After commencing the turn, the other aircraft also made a turn to the right. Once clear he resumed his original course, he did not recall receiving any traffic information from ATC.

He assessed the risk of collision as 'Medium to Low'

Factual Background

The weather at Benson was recorded as:

METAR EGUB 301350Z 19008KT 9999 FEW035 BKN250 17/09 Q1012 BLU NOSIG
METAR EGUB 301550Z 20008KT 9999 FEW040 BKN250 16/09 Q1011 BLU NOSIG

Analysis and Investigation

CAA ATSI

The Merlin had departed RAF Benson and was operating VFR. The pilot reported maintaining a listening watch on the Luton Radar frequency and transponder monitoring code 0013 was set (code 0013 may be used when flying in the vicinity of London Luton/London Stansted Control Zones/Areas and monitoring either Luton Radar or Essex Radar frequencies). Use of monitoring codes does not imply that any form of Air Traffic Service is being provided.

The PA28 was on a VFR solo navigation flight, and was in receipt of a Basic Service from Farnborough LARS (North). The PA28 was transponding 5032.

Both Luton Radar and Farnborough LARS (North) frequencies were reviewed and there were no transmissions from either aircraft in relation to the incident. Farnborough LARS was unaware of the incident until subsequently notified over a week later. ATSI had access to both pilot reports, recorded area surveillance, and transcription of Farnborough frequency 132.8MHz.

The PA28 called Farnborough using the 'student' callsign at 1512:30 UTC and requested a Basic Service. The London QNH 1011hPa was passed, squawk 5032 assigned, and a Basic Service agreed. The PA28 reported leaving the Farnborough frequency at 1526:30 to call Turweston and returned to the Farnborough frequency at 1536:20. No further calls were received from the PA28 until 1552:10 when the pilot requested to leave the frequency for Denham. At 1545:00 the two aircraft were on converging tracks southeast of Aylesbury aerodrome (Figure 1).

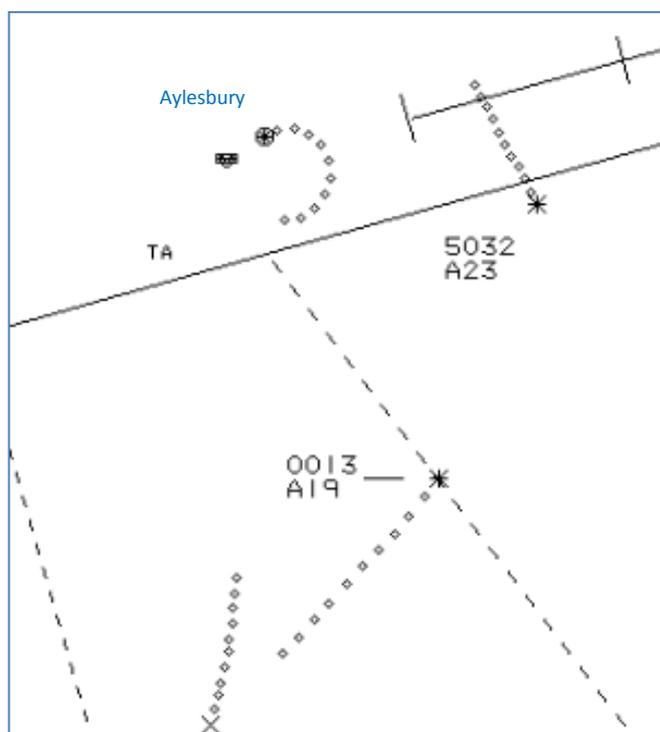


Figure 1: Bovington Radar – 1545:00 UTC

The aircraft continued on their respective tracks until, at 1545:38, the PA28 appeared to be in the Merlin's 12 o'clock at a range of 0.3nm and 300ft above (Figure 2).

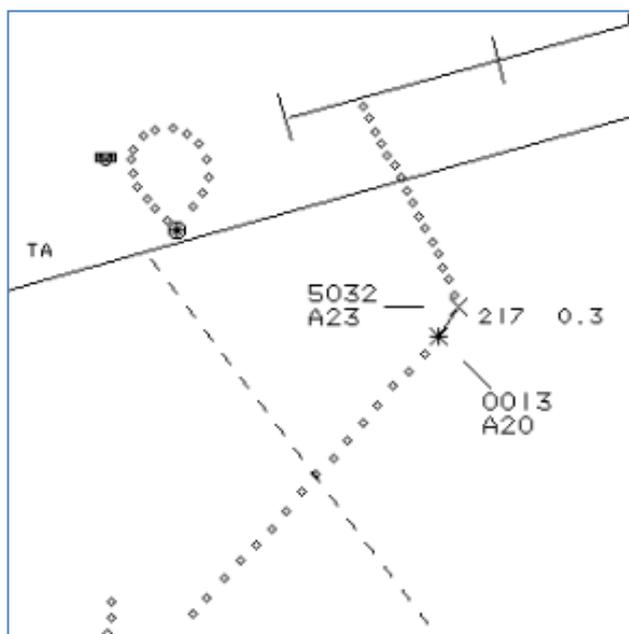


Figure 2: Bovingdon Radar 1545:38 UTC

On the next update of the radar the two aircraft were executing right turns and passing at a distance of 0.1nm and 200ft (Figure 3). They continued to track away from each other in opposite directions and the Merlin had descended 200ft (Figure 4).

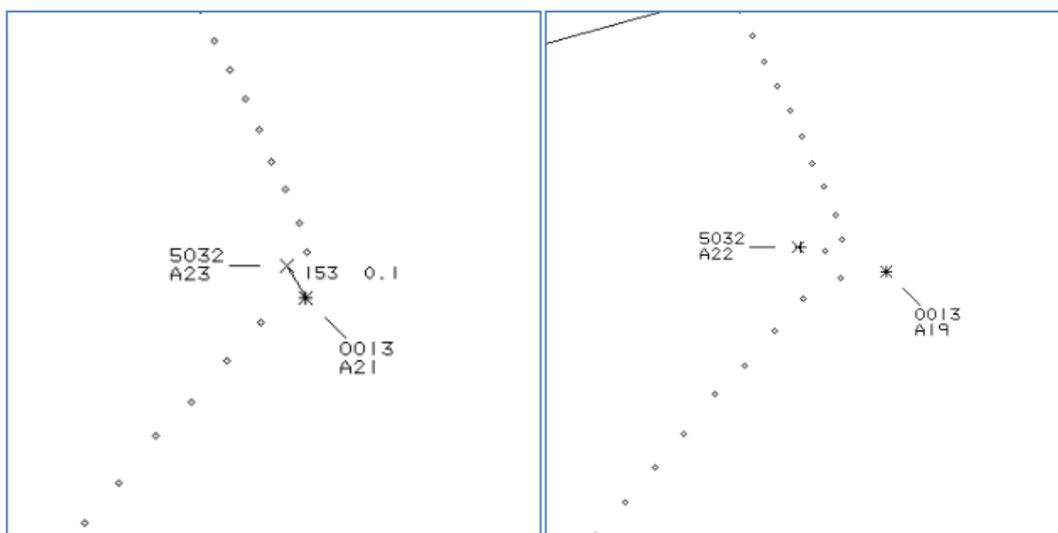


Figure 3: Bovingdon Radar – 1545:43

Figure 4: Bovingdon Radar – 1545:48

Within Class G airspace, regardless of the service being provided, pilots are ultimately responsible for collision avoidance. Identification of an aircraft in receipt of a Basic Service does not imply that an increased level of ATS is being provided, or that any subsequent monitoring will take place.

UKAB Secretariat

Both aircraft shared an equal responsibility to avoid a collision¹, and because the geometry was converging, the PA28 pilot was required to give way to the Merlin², which he did.

¹ Rules of the Air 2007 (as amended) Rule 8 (Avoiding Aerial Collisions)

² Ibid. Rule 9 (Converging)

Summary

An Airprox was reported between a Merlin and a PA28 on 30 April 2014 at 1545. The Merlin received Traffic Information from Benson ATC, although it is unclear whether this was in fact on the PA28, and then switched to Luton for a listening watch. The PA28 was receiving a Basic Service from Farnborough LARS (North).

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

In considering the actions of the PA28 pilot, the Board noted that this was a student on a solo nav-ex and it was possible that he may well have been concentrating on his navigation and tasks inside the cockpit to the detriment of look-out. As a result, the Board opined that he may have been better served under a Traffic Service in order to supplement his lookout, although it was noted that in this busy area of airspace this was sometimes difficult to obtain. In the event, he did see and take avoiding action on the Merlin, albeit at what appeared to be a late stage.

Conversely, the Board noted that the Merlin crew had seen the conflicting traffic for some time before they decided to act. Accepting that the PA28 was required to give way to the Merlin, and that the Rules of the Air (Rule 8 – Avoiding Aerial Collisions) require an aircraft which has right of way in a collision situation to maintain its course and speed, the Board nevertheless commented that early action, such as a change in elevation, or even a small turn to change the geometry (and potentially highlight the Merlin to the PA28 pilot) would have prevented the situation from developing as it did. The Board also noted that, despite having the PA28 visual, the radar recording showed that the Merlin had climbed 200ft towards the PA28 in the latter stages of the encounter thus reducing vertical separation from 400ft at 45secs prior to the Airprox, to 200ft or less at CPA. The Board wondered if this had been as a result of focusing their attention on the PA28 and inadvertently climbing as they instinctively maintained their sight-line. Certainly, this incident was a salutary lesson on the benefits of pro-actively taking positive early action.

The Board agreed that the cause of the Airprox was a late sighting by the PA28 pilot, with a contributory factor that the Merlin crew did not manoeuvre earlier to break the conflict. The Board assessed the risk as B, safety margins had been reduced below the normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the PA28 pilot.

Contributory Factor(s): The Merlin crew did not manoeuvre earlier to break the conflict.

Degree of Risk: B.

ERC Score³: 21.

³ 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.