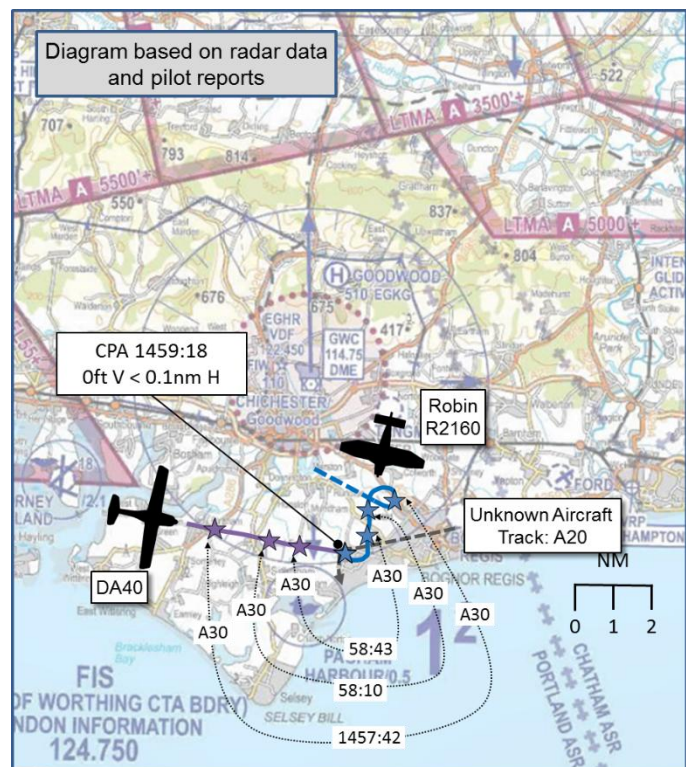


AIRPROX REPORT No 2014139**Date/Time:** 15 Aug 2014 1459Z**Position:** 5047N 00044W
(4.4nm SSE of Goodwood)**Airspace:** London FIR (Class: G)**Aircraft 1** **Aircraft 2****Type:** Robin R2160i DA40**Operator:** Civ Trg Civ Trg**Alt/FL:** 3000ft 3200ft
QNH (1018hPa) QNH (1017hPa)**Conditions:** VMC VMC**Visibility:** 15km 10km**Reported Separation:**

0ft V/50m H 0ft V/10m H

Recorded Separation:

0ft V/<0.1nm H

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

THE ROBIN (HR20) PILOT reports flying an instructional sortie with a student pilot in a red and white aircraft. Strobe light and landing light were illuminated, and transponder Modes 3/A, C and S were selected; no ACAS¹ was fitted. The student was carrying out a medium-level turn exercise, VFR at 100kt, and deliberate look-out had been carried out. They saw an aircraft to their left, around 1000ft below and going away from them. They elected to turn right, away from this aircraft but, during the turn, a white single-engine low-wing aircraft, possibly a 'Diamond or Cirrus', 'flashed past' them on their right, around 50m away and at the same level; they thought that this was the same aircraft that they had seen below them around 90sec earlier.

He assessed the risk of collision as 'High'.

THE DA40 PILOT reports flying an instructional sortie, with a student pilot, in a blue and white aircraft with a strobe light illuminated and Squawking transponder Modes 3/A, C and S; no ACAS was fitted. Prior to departure, the crew had briefed to emphasize their lookout, and the Instructor had reminded the student that they were not flying IFR, but VFR using the VOR for lateral navigation. The student was practicing tracking to and from a VOR, and intercepting selected radials (under a Basic Service with Shoreham Approach) without the use of IFR goggles or hood. The instructor assessed the workload as low; they had tracked towards the GWC VOR, passed overhead it 'significantly above the ATZ', and then began practicing tracking to the south. Once this exercise was complete, the student was tasked to tune to the SFD VOR, intercept the 287° radial, track to the Shoreham overhead and then descend to 2000ft for an overhead join. Whilst heading 070° at 120kt, to intercept the 287° radial at 3200ft (QNH 1017hPa), they saw a red and white low-wing, single-engine aircraft, possibly a Vans or similar 'tail-dragger' with black and white 'checker flag' markings they recalled. They saw the other aircraft very late (around 10-15m away) descending towards them; there was only time for the student to raise the right wing but not to achieve any heading or altitude change. They saw the other aircraft 'veer' to its left and thought that the other pilot was taking avoiding action.

He assessed the risk of collision as 'High'.

¹ Airborne Collision Avoidance System

Factual Background

The weather at Southampton at 1450 was recorded as:

METAR EGHJ 141450Z 33004KT 300V010 9999 FEW028 17/09 Q1018=

Analysis and Investigation

CAA ATSI

The HR20 was in communication with Goodwood Information and the DA40 was in receipt of a Basic Service from Shoreham Approach. At 1457:51 the radar recording showed the HR20, squawking Mode 3/A 7000, in a left-hand orbit 3.5nm southeast of Goodwood Airport. The DA40 was squawking Mode 3/A 3763 (Shoreham VFR conspicuity) 4.4nm southwest of Goodwood tracking east. Both aircraft were indicating an altitude of 3000ft.

At 1458:42 the HR20 took up a southerly heading and the distance between the two aircraft was 1.8nm (Figure 1). An unknown aircraft was shown at 2000ft, tracking west (also squawking Mode 3/A 3763 - Shoreham VFR conspicuity). The HR20 pilot's written report indicated that he had sighted an (unknown) aircraft, 1000ft below, and going away from him, so he elected to turn right.

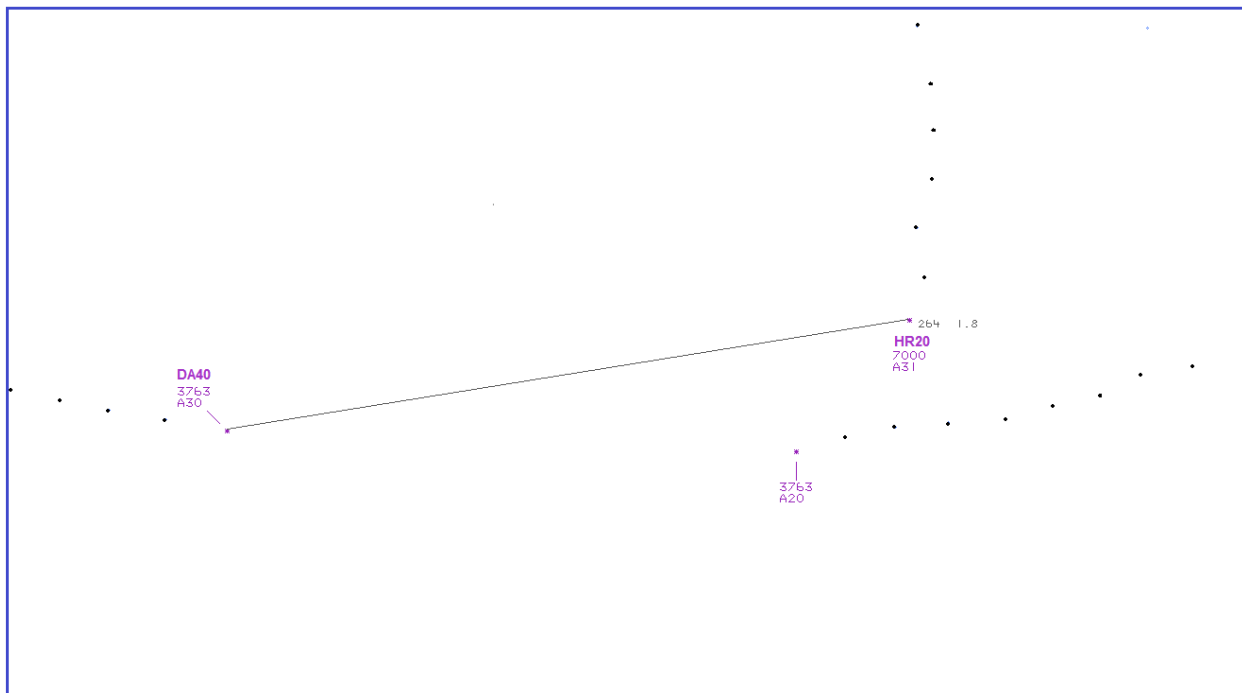


Figure 1 – Swanwick MRT at 1458:42

At 1459:06 the HR20 was shown turning right towards the DA40 at a horizontal distance of 0.8nm. The HR20 was indicating 100ft above the DA40 (Figure 2).

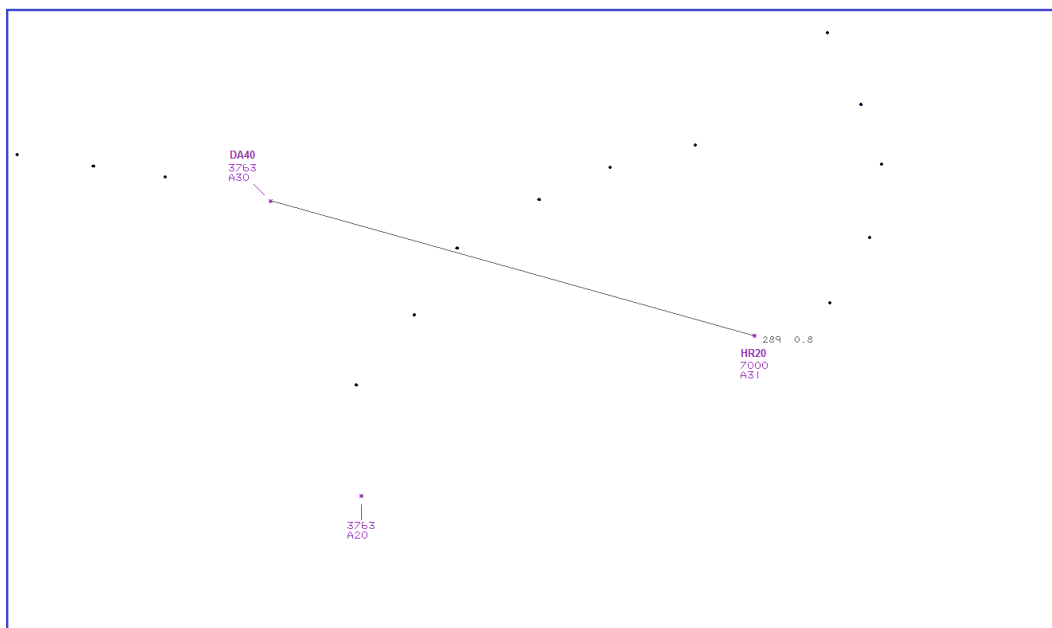


Figure 2 – Swanwick MRT at 1459:06

The HR20 continued the right turn and, at 1459:18, the two aircraft were shown in close proximity at a range of less than 0.1nm and at the same level (3100ft) (Figure 3). The CPA occurred between radar sweeps; at 1459:18 both radar returns are shown with no measurable separation and both Mode Cs indicating A31, the next sweep of the radar showed that the two aircraft had passed and were diverging at the same level. The HR20 pilot reported that both aircraft were at the same level, and estimated the horizontal distance to be 50m.

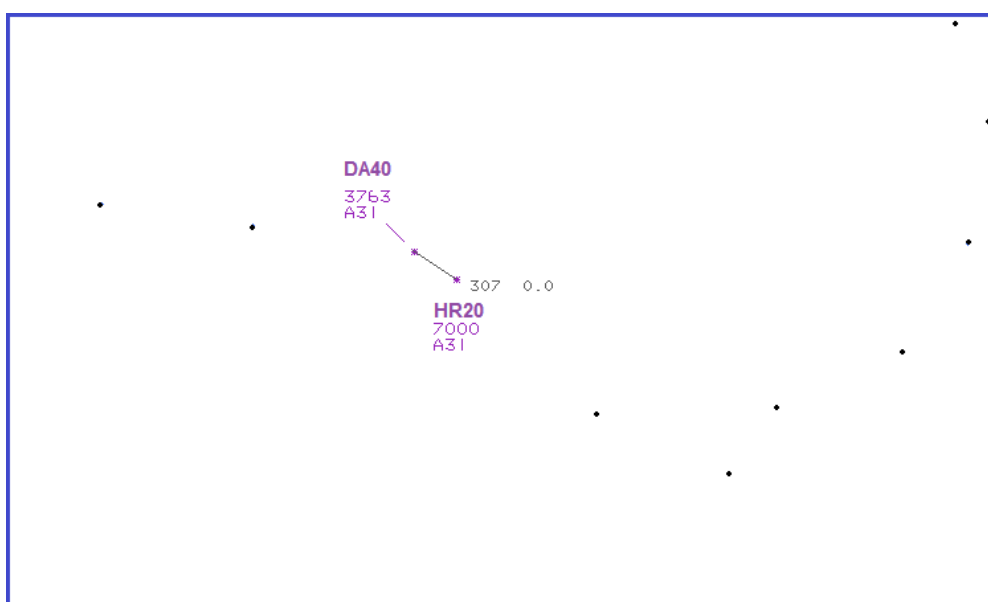


Figure 3 – Swanwick MRT at 1459:18

No mention of the Airprox was made on the RT by the HR20 pilot to Goodwood information and the Goodwood FISO was not aware of the DA40 in transit.

The DA40 was in receipt of a Basic Service from Shoreham Approach wherein:

*'Pilots should not expect any form of traffic information from a controller, as there is no such obligation placed on the controller under a Basic Service, and the pilot remains responsible for collision avoidance at all times.'*²

² CAP774, Chapter 2, Paragraph 2.5

The DA40 pilot's written report was not received within 30 days of the occurrence and it was not possible to obtain RT recordings from Shoreham approach.

UKAB Secretariat

Both pilots had equal responsibility for avoiding collisions and for ensuring that do not fly in such proximity to other aircraft as to create a danger of collision.³

Summary

An Airprox was reported in Class G airspace 4.4nm to the south-southeast of Goodwood, between a Robin R2160i, being flown VFR on an instructional sortie, and a DA40 being flown VFR on an instructional sortie with a Basic Service from Shoreham Approach. Both crews became aware of the other aircraft very late and had little time in which to take avoiding action.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board agreed that given that the HR20 pilot was not in receipt of an Air Traffic Service, and that the DA40 pilot was in receipt only of a Basic Service, look-out was the central theme to this occurrence. Members with good local knowledge opined that the DA40 pilot may have been better served by talking to Goodwood in that area given that Shoreham was quite distant. This may then have alerted the pilots to each other's presence, but this was not the central cause of the Airprox. It was noted that both aircraft were being flown on instructional sorties and members opined that the demands of instructing may have had an impact on the pilots' respective lookouts; equally, the HR20 pilot may have had his attention captured by the aircraft that he saw 1000ft below him just before the Airprox.

The Board quickly agreed that, although the crews had seen each other's aircraft, the sightings were so late that they could not have taken any effective action. They determined therefore that the cause was effectively a non-sighting by both pilots. Turning to the degree of risk, members noted that both pilots' reports had correlated with a radar-recorded CPA of <0.1nm H and 0ft V. They therefore agreed that this had been a situation that had just stopped short of an actual collision, where separation had been reduced to the minimum and / or where chance had played a major part in events; consequently, they agreed that this was a risk Category A incident.

PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause:</u>	Effectively a non-sighting by both pilots.
<u>Degree of Risk:</u>	A.
<u>ERC Score⁴:</u>	100.

³ Rules of the Air 2007, Rule 8, Avoiding Aerial Collisions

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.