

AIRPROX REPORT No 2014059

Date/Time: 7 May 2014 0834Z

Position: 5056N 00009W
(Hurstpierpoint)

Airspace: London FIR (Class: G)

Aircraft 1 Aircraft 2

Type: DA42 DA40

Operator: Civ Trg Civ Pte

Alt/FL: 2500ft 2500ft
NK NK

Conditions: VMC VMC

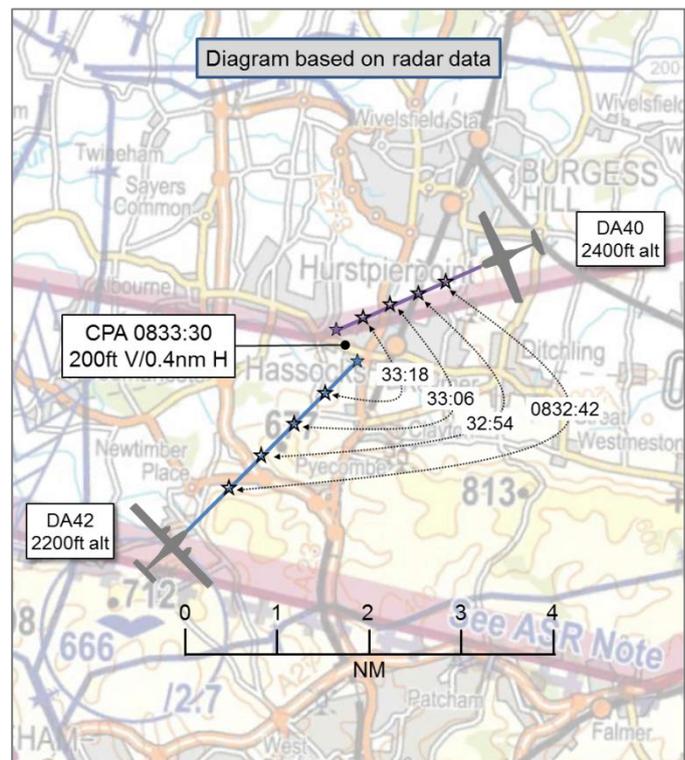
Visibility: NK >10km

Reported Separation:

0ft V/300m H Not Seen

Recorded Separation:

200ft V/0.4nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE DA42 PILOT reports conducting an instrument training sortie with IF screens fitted. The white aircraft had navigation lights and strobes selected on, as was the SSR transponder with Modes A, C and S. The aircraft was not fitted with a TAS or ACAS. The pilot was operating under IFR in VMC, in receipt of a Procedural Service from Shoreham. Whilst descending outbound, on the RW20 RNAV approach via NITEN, a DA40 passed right to left, ahead and across his track. It was seen only by the passenger who stated it was at the same altitude. The pilot stated that the DA40 pilot 'appeared to be unaware of instrument approach procedures at Shoreham'.

He did not make an assessment of the risk of collision.

THE DA40 PILOT reports transiting to an airfield abroad. The predominantly white aircraft had strobe and position lights selected on, as was the SSR transponder with Modes A and C. 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 Shoreham at CPA. The pilot stated he had been working Farnborough LARS(E) and then changed to Shoreham. Weather conditions were excellent. Both the Farnborough frequency and the Shoreham one were quite quiet. He was only aware of one other aircraft working Shoreham, possibly a DA42, doing approaches onto RW02, if he recalled correctly. At no time was he aware of an Airprox. Nothing was mentioned on the radio. Shoreham passed basic flight information and asked him to report at Littlehampton, which he did.

Factual Background

The weather at Shoreham was recorded as follows:

METAR EGKA 070820Z 22009KT 9999 SCT020 17/13 Q1016

Analysis and Investigation

CAA ATSI

ATSI had access to Shoreham RTF and area radar recording, together with the written reports from both pilots. The Airprox was not reported to the ATSU either on the RTF, or subsequently, and therefore no controller or unit report was available.

The Shoreham controller was providing an Approach Control Service without the aid of surveillance equipment but with access to direction finding (DF).

The DA40 pilot was operating VFR on a flight to a foreign destination and, having just made contact, was in receipt of a Basic Service from Shoreham APP.

The DA42 pilot was conducting an instrument training exercise at Shoreham Airport comprising a hold at the SHM NDB, followed by the RNAV approach via NITEN (IAF) for RW20 and was in receipt of a Procedural Service from Shoreham APP. An extract from the UK AIP, page AD 2-EGKA-8-4 dated 3rd April 2014, is reproduced in Figure 1 below:

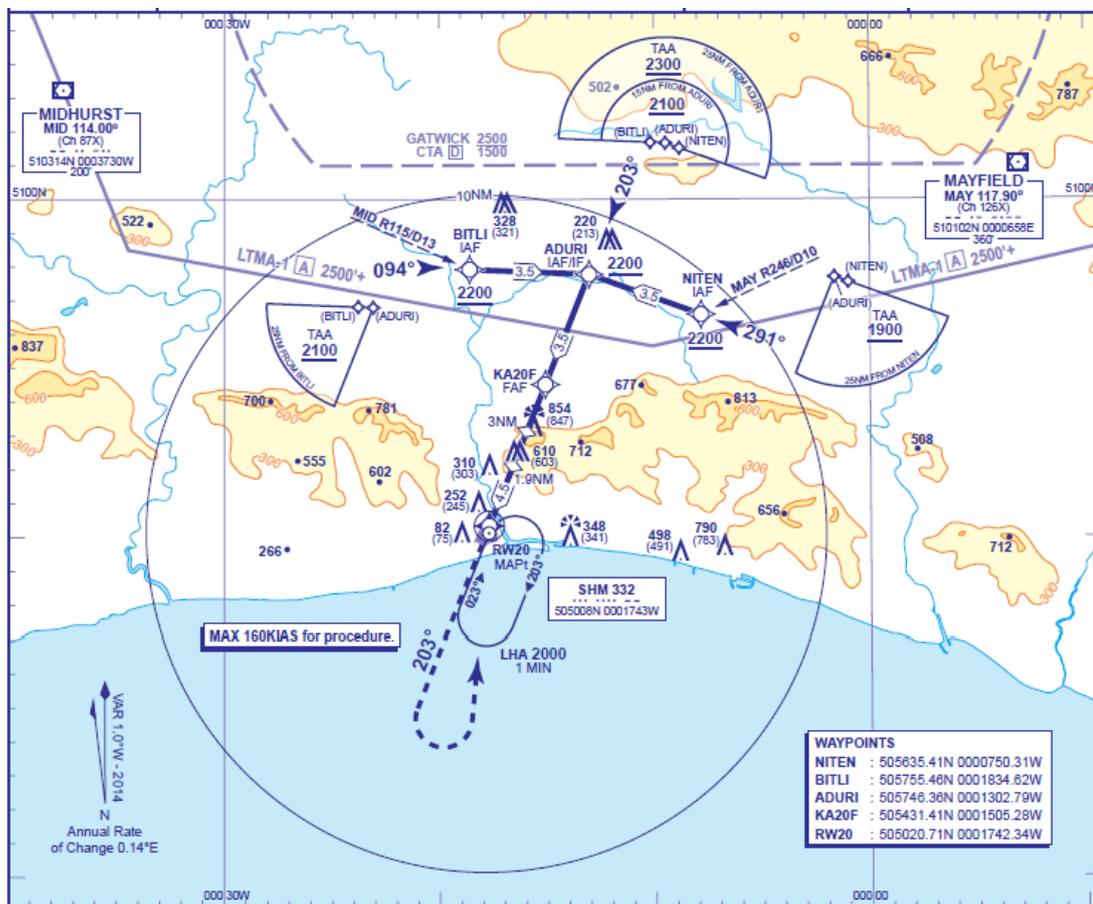


Figure 1: Shoreham Instrument Approach Chart RNAV (GNSS) RW20 (ACFT CAT A,B – ICAO)

The DA42 pilot was established in the SHM NDB hold at 2500ft [SSR Code 3762 - Shoreham IFR unverified] and had been instructed to report beacon outbound. At 0830:50, the DA42 pilot reported beacon outbound for NITEN, and the controller instructed him to report at NITEN.

At 0832:30, the DA40 pilot contacted Shoreham APP, reported 9nm northeast of Shoreham heading towards Littlehampton at 2400ft on 1009hPa, and requesting a Flight Information Service. The controller replied, "[DA40 C/S] traffic is a Twin Star routeing from Shoreham to the north-northeast at two thousand five hundred feet descending to twenty two hundred feet squawk three seven six three and report crossing the coast at Littlehampton". [SSR code 3763 - Shoreham VFR

unverified]. The DA40 pilot acknowledged, “*Squawking er three seven six three copy the traffic and wilco [DA40 C/S]*”. Swanwick MRT showed the distance between the two aircraft as 4nm, see Figure 2 below:

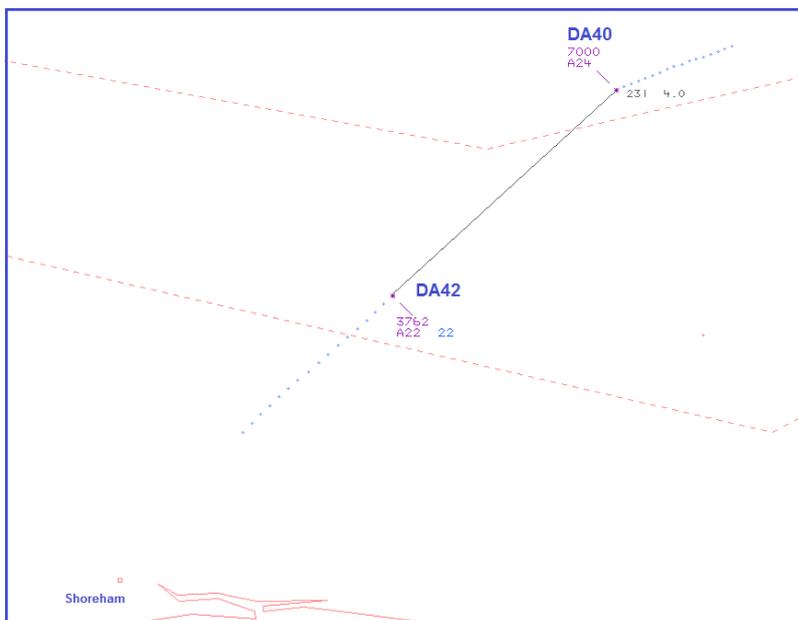


Figure 2 - Swanwick MRT at 0832:20

The controller then passed traffic information to the DA42 pilot, “[DA42 C/S] *traffic Diamond Star, two thousand four hundred feet routeing southwest-bound*”. This was acknowledged at 0833:26 by the DA42 pilot and the controller added, “*Ah your D F trace puts him off to your left-hand side*”. MRT showed the DA40 in DA42’s 10 o’clock position at 0.5nm, see Figure 3 below:

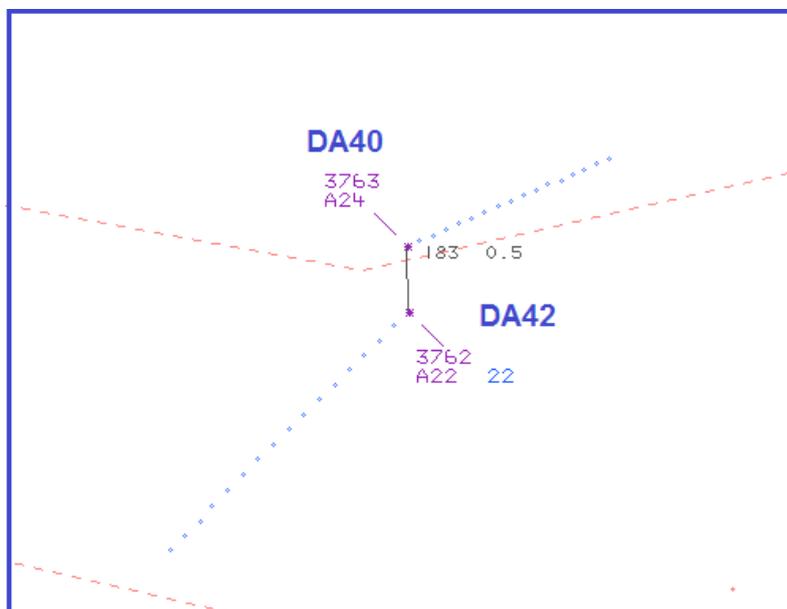


Figure 3 - Swanwick MRT at 0833:26

The DA42 pilot acknowledged, “*Roger*” and the DA40 pilot transmitted, “*and [DA40 C/S] visual gone behind us*”. CPA occurred at 0833:30 when the horizontal distance between the aircraft was 0.4nm and the vertical distance was 200ft, see Figure 4 below:

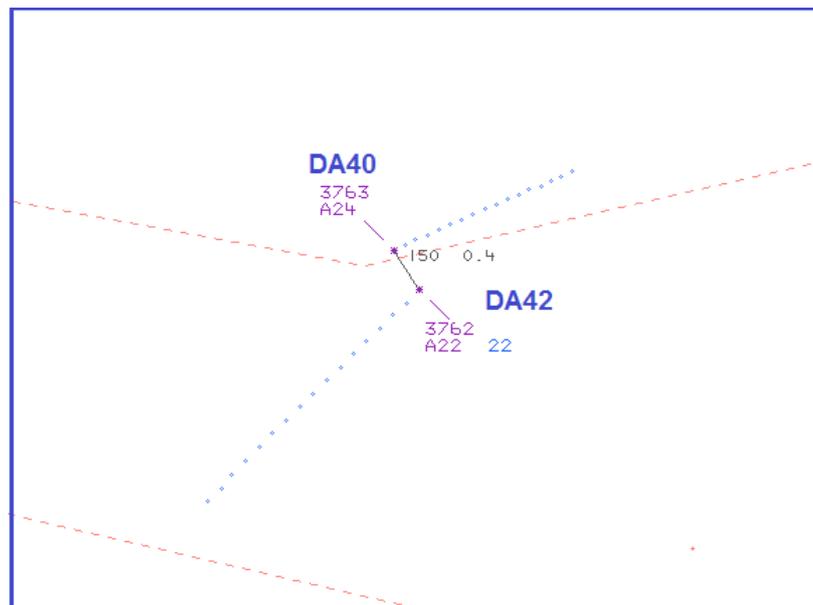


Figure 4 - Swanwick MRT at 0833:30

The DA42 pilot was in receipt of a Procedural service and CAP774 (Flight Information Services), Chapter 5, Paragraph 5.5, states:

'The controller shall provide traffic information, if it is considered that a confliction may exist, on aircraft being provided with a Basic Service and those where traffic information has been passed by another ATS unit; however, there is no requirement for deconfliction advice to be passed, and the pilot is wholly responsible for collision avoidance...'

The DA40 pilot contacted Shoreham APP one minute before the Airprox and the controller immediately passed Traffic Information to both aircraft. The controller also recognised, from the D/F bearing, the relative position of the aircraft and he passed further advice to the DA42 pilot on the position of the DA40 "to your left-hand side", which proved from radar recordings to be accurate.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision¹. If the geometry is considered 'converging' then the DA40 pilot was required to give way to the DA42², if it is considered 'head-on' then both pilots were required to manoeuvre to the right³.

Comments

DA42 Company Local Safety Manager

In subsequent conversation, the Local Safety Manager stated that the company had temporarily suspended operations to Shoreham until completion of a formal risk assessment.

Summary

An Airprox was reported when a DA42 and a DA40 flew into proximity near Hurstpierpoint at 0834 on Wednesday 7th May 2014. Both pilots were operating in Class G airspace, the DA42 pilot in receipt of a Procedural Service and the DA40 pilot in receipt of a Basic Service, both from Shoreham APP.

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

² *ibid.*, Rule 9 (Converging).

³ *ibid.*, Rule 10 (Approaching head-on).

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and a report from the appropriate ATC authority.

The Board first considered the action of the Shoreham controller who was providing a Procedural Service to the DA42 pilot and had just agreed a Basic Service with the DA40 pilot, who had transferred to the Shoreham RTF about 1min before the Airprox. In the short time available, the controller was able to provide Traffic Information to both pilots, action that was not required under either service. That he did so using DF alone was an accomplishment for which the Board commended him. Unfortunately, neither pilot was able to use this information to achieve visual acquisition and they passed without realization of the other's position.

The DA40 pilot was in straight and level flight in good weather conditions and had been passed accurate Traffic Information. It was unfortunate that he did not see the DA42. The DA42 pilot was conducting an instrument training sortie, with IF screens fitted, also operating in good weather conditions, albeit under IFR. The Board noted that the mandatory requirement to fit IF screens was rescinded by the CAA in 2013⁴, and that anecdotal evidence, including members' personal experience, indicated that their fitment could present a barrier to effective lookout. With this in mind, the Board resolved to recommend that the DA42 Operating Company considers reviewing the use of IF screens. Board members also reiterated the limitations of a Procedural Service, and opined that the phraseology used could create a pilot mindset of a greater degree of separation than that actually provided.

The Board agreed that the cause of the Airprox was a non-sighting by both pilots, and that, despite the separation of 0.4nm, safety margins had been much reduced because of the procedural nature of the DA42 pilot's approach under IFR.

PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause:</u>	A non-sighting by both pilots.
<u>Degree of Risk:</u>	B
<u>ERC Score</u> ⁵ :	20
<u>Recommendation:</u>	The DA42 Operating Company considers reviewing the use of IF screens.

⁴ IN-2013/111

⁵ 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.