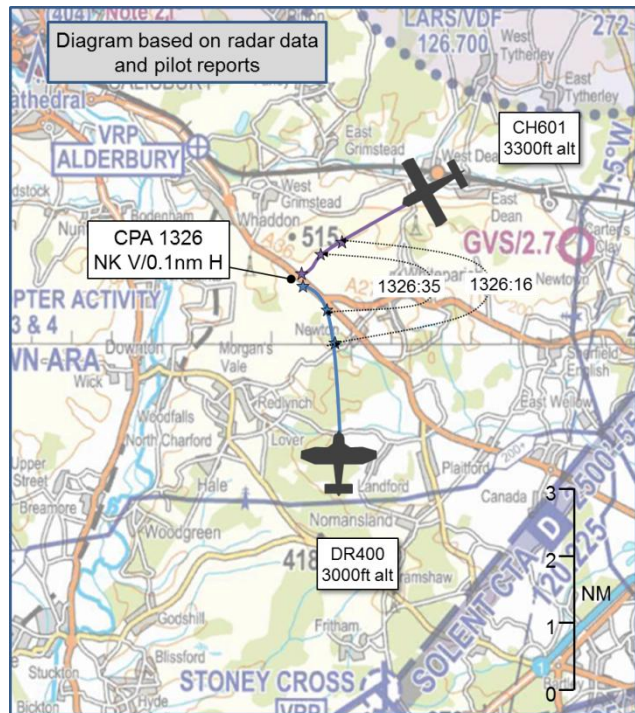


AIRPROX REPORT No 2014101

Date/Time: 29 Jun 2014 1326Z (Saturday)
Position: 5100N 00141W
 (3NW Stoney Cross VRP)
Airspace: LON FIR (Class: G)
Aircraft 1 Aircraft 2
Type: DR400 Zenair 601 XL
Operator: Civ Club Civ Pte
Alt/FL: 3000ft 3300ft
 QNH (1013hPa) QNH (1013hPa)
Conditions: VMC VMC
Visibility: >10K 40K
Reported Separation:
 0ft V/20m H 200ft V/0ft H
Recorded Separation:
 NK V/0.1nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE DR400 PILOT reports flying a predominantly white aircraft with strobe and landing lights on and SSR transponder Modes 3A and C selected. The aircraft was not fitted with TCAS. He was flying at 3000ft and had requested a frequency change from Bournemouth to Old Sarum Radio. Before he left the Bournemouth frequency he was asked to set his transponder to 7000 and, after changing frequency and whilst setting the transponder, he became aware of the presence of an object in his peripheral vision in his 2 o'clock position. He raised his eyeline to track the other aircraft and saw a low-wing, navy-blue, single-engine aircraft with the aft profile of the rudder raked forward. He instantly initiated a bank angle of 45° right. He estimated that the other aircraft was within 20m directly ahead of his aircraft at the point at which he initiated his avoiding action.

He assessed the risk of collision as 'High'.

THE ZENAIR 601 (CH601) PILOT reports flying a blue aircraft without lights activated during this flight. The SSR transponder was selected with Modes 3A and C, but the aircraft was not fitted with TCAS. He reported that he kept a good look-out during his flight, and saw many other aircraft, but did not see the one reporting this Airprox. He saw a white aircraft emerge from beneath his starboard wing at around the reported time, but it did not appear close to his height. He subsequently looked on the Bournemouth web-track and could see the conflicting aircraft on a continual climb from the north boundary of Bournemouth ATC to the point where the tracks crossed. He noted that his usual route back to his landing airfield would have taken him closer to Salisbury, but that a NOTAM for the day informed of aerial activity around Salisbury, so he kept well away to the south.

He assessed the risk of collision as 'High'.

Factual Background

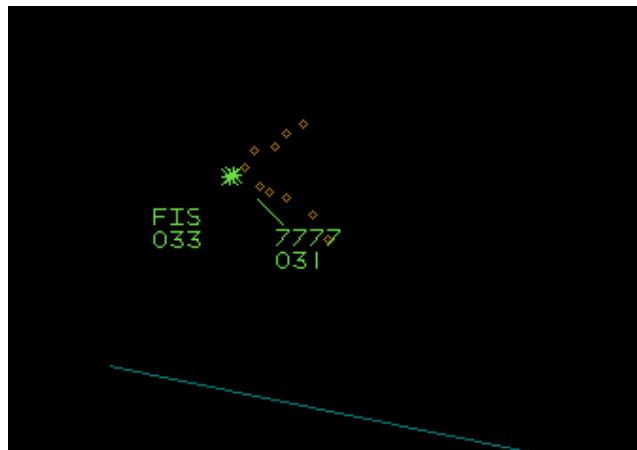
The Bournemouth weather was reported as:

EGHH 291320Z VRB08KT 9999 FEW030 SCT046 19/09 Q1013

Analysis and Investigation

CAA ATSI

The CH601 was in receipt of a Basic Service from London Information prior to the reported Airprox. Traffic Information was not passed on the DR400. The DR400 had been in receipt of a Basic Service from Bournemouth Radar prior to the Airprox but had changed frequency to Old Sarum 30 seconds before the Airprox occurred. Traffic Information was not passed to the DR400 on the CH601 by Bournemouth Radar. The 2 aircraft converged and crossed tracks; the DR400 at FL031 (squawking 7777) and the CH601 at FL033 (squawking 7000) at 1326:59 (Figure 1 below).



UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and for not flying into such proximity as to create a danger of collision¹. The geometry was a 'converging' situation and so the DR400 pilot was required to give way².

Summary

An Airprox was reported on 29th June 2014 at 1326 between a DR400 and a Zenair CH601. The CH601 was receiving a Basic Service from London Information but did not receive Traffic Information, and the DR400 was not receiving an ATS at the time of the Airprox having changed frequencies from Bournemouth Radar to Old Sarum 30secs prior.

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.

The Board first considered the actions of the DR400 pilot. The action of unknowingly changing frequency and squawk just prior to the Airprox had required him to focus inside the cockpit, and the Board opined that this had probably compromised his look-out at the critical juncture. The Board noted his estimate of 20m separation but, compared to the radar-measured separation of 0.1nm, considered that the pilot's closer estimate was probably influenced by the startle factor of looking up and suddenly seeing the conflicting traffic. Although undoubtedly close, the separation had probably been somewhere between the two (radar-measured separation being also subject to some uncertainty due to the size of radar returns and radar jitter etc).

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

² *ibid.*, Rule 9 (Converging).

Turning to the CH601 the Board wondered whether he would have been better served by seeking a radar-based Traffic Service from one of the operators in the area, rather than speaking to London Information for a Basic Service. Notwithstanding his reported good look-out, the DR400 had probably been on a constant bearing as they approached and, although it was there to be seen, the problems associated with visually acquiring other aircraft in such circumstances are well documented.

This encounter occurred in Class G airspace, with both pilots seeing the other aircraft very late indeed; the Board quickly agreed that the cause was an effective non-sighting by both pilots. The Board discussed whether the avoiding action taken by the DR400 had had much effect on the outcome, bearing in mind that the CH601 was already in his 12 o'clock when he saw it. In the end, the Board agreed that it probably had not, and assessed the risk as Category A; the situation had stopped short of an actual collision, but that chance had played a major part.

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 Score</u> ³ :	100.

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.