

AIRPROX REPORT No 2013020

Date/Time: 20 Apr 2013 1315Z (Saturday)

Position: 5205N 00148W
(1nm E Honeybourne)

Airspace: Lon FIR (Class: G)

Reporting Ac Reporting Ac

Type: ASW27 PA34

Operator: Civ Pte Civ Trg

Alt/FL: 4300ft 4400ft
QNH (1034hPa) QNH (1032hPa)

Weather: VMC CLNC VMC CLOC

Visibility: >20km >10nm

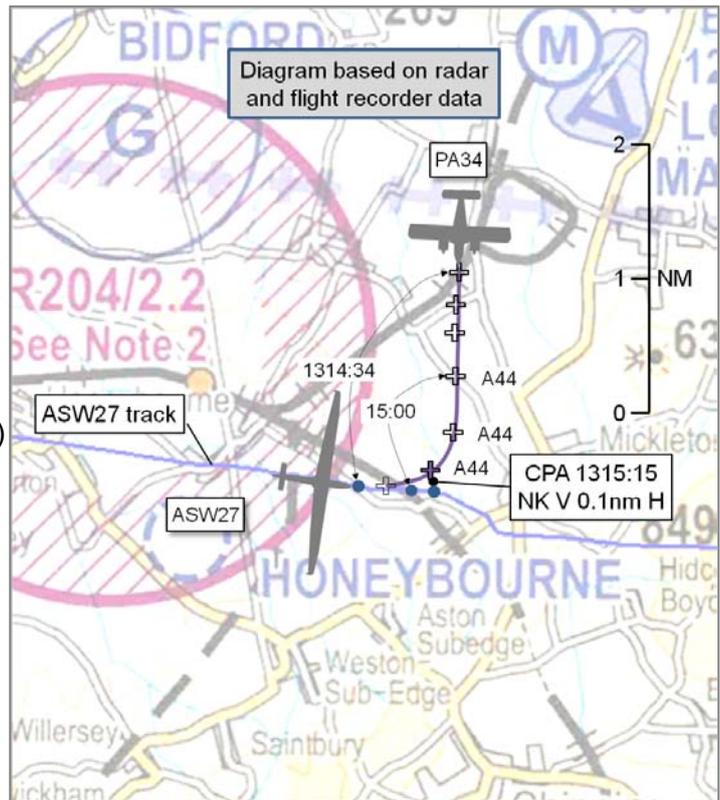
Reported Separation:

30ft V/10m H 0ft V/NK H

Recorded Separation:

NK V/0.1nm H

BOTH PILOTS FILED



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE ASW27 PILOT reports flying a cross-country task from Dunstable whilst listening out on Gliding Common frequency (130.100MHz). His turning points were Leighton Buzzard - Great Malvern – Bletchley – Cottam, with the Airprox occurring on the 2nd leg between Great Malvern and Bletchley. Visibility was >20km in VMC, the glider was coloured white, and FLARM was fitted. Close to Evesham, about 3min prior to CPA, he had completed a thermal climb to approximately 5000ft and commenced a cruise (glide) with IAS varying between 80kt and 50kt and heading between 090° and 100° as he responded to areas of lift/sink along track. Whilst flying at 4300ft QNH, with wings-level, at about 60kt, and in an area of rising air, he looked L and saw an ac approaching from his 9 o'clock about 50-100m away, at high speed and at the same level in a slightly climbing attitude. The other ac, a small twin-engine type, made a steep turn to the R so that it passed above and behind. The ASW27 pilot assessed the minimum separation to be about 30ft vertically and 10m laterally. The period between first sighting and the other ac passing to the rear was 2-3sec. There was no doubt in his mind that a collision would have occurred had the other ac not taken what he took to be avoiding action. He postulated that he had not seen the other ac until late either because his lookout was inadequate or the ac had approached from a blind spot under his L wing.

He assessed the risk of collision as 'High'.

THE PA34 PILOT reports conducting a dual IF training sortie from Oxford, VFR, and, at the time of CPA, in receipt of a BS from Oxford on 127.750MHz squawking 7000 with Modes S and C; IF screens were in use. The visibility was >10nm in VMC clear of cloud, and the ac was coloured white/blue with strobe lights switched on. The flight was initially an IFR departure to join airways en-route to DTY, then an ILS at Coventry, before a standard missed approach was flown to 14DME which placed the ac into Class G airspace. Whilst working with Coventry they advised him under a BS that Hinton was active. A session of GH was required so, after moving away from Birmingham's airspace, and observing numerous contacts to the S, he decided to avoid Hinton and Edgehill by taking up a W'ly track between 2500 and 4000ft, remaining S of Wellesbourne. This W'ly positioning also meant that he could, if required, then operate at a higher level (above 4500ft). The last item of the GH was an approach-configuration stall recovering at the first stall indication. The student was instructed to commence a turn onto heading 180° as his lookout turn prior to the stall. The stall

recovery was successfully completed and the instructor took control and levelled the ac. After a scan around his position for traffic, flying at 115kt, he requested the candidate's chart and used the GPS to orientate them (heads-down for 5sec). Whilst instructing the candidate to give him a heading for Oxford, he became aware of a glider in his 1 o'clock range 200m crossing R to L on an E'ly heading at the same level. It was close enough for him to immediately look to the R and roll into a 45°+ banked turn to avoid. He did not see the glider again, owing to his turn, and he resumed a S'ly track until the candidate tracked the OX NDB.

He assessed the risk of collision as 'High'.

Factual Background

The weather at Gloucestershire and Birmingham was recorded as follows:

METAR EGBJ 201320Z 21004KT 130V270 9999 SCT048 14/00 Q1031
METAR EGBB 201320Z 17007KT 110V250 CAVOK 14/M00 Q1031

Oxford ATC was not using radar due to a shortage of surveillance valid controllers and was providing a combined ADC and APP PS [127.750MHz]. The following NOTAM was issued:

L2171/13 NOTAMN
Q) EGTT/QSPLT/IV/B0 /A /000/999/5150N00119W005
A) EGTK B) 1304160800 C) 1304211700
E) RADAR OPR ON LIMITED MANNING, SHORT NOTICE CLOSURE OF RADAR MAY OCCUR. WHEN RADAR IS CLOSED A PROCEDURAL SERVICE WILL BE PROVIDED.

The ASW27 pilot was on a cross-country gliding task, having departed from Dunstable. The Airprox occurred as he routed between Great Malvern and Bletchley. The pilot reported having the gliding frequency 130.100MHz selected, and was not in receipt of an ATS.

The PA34 pilot was on an IF-training flight from Oxford to Oxford. The routeing commenced with an airways join at Daventry VOR (DTY), then an ILS approach at Coventry from which a standard missed approach was flown, placing the ac back in Class G airspace. A session of general handling then followed before the instructor and trainee prepared for the return to Oxford.

The Airprox was not reported to Oxford ATC.

ATSI Analysis

The PA34 pilot departed Oxford at 1215 and, having climbed to altitude 5000ft, was transferred at 1226 by Oxford ATC to London Control for airways clearance.

At 1302:22, the PA34 pilot called Oxford ATC, notified "*general handling to the north*" and requested a BS; this was agreed and the QNH [1032hPa] was passed. The PA34 was 19.3nm NNW of Oxford at altitude 2800ft. Under a BS pilots should not expect to receive TI, and the presence of the ASW27 was unknown to Oxford ATC.

The PA34 track was recorded on area radar; however the ASW27 was not detected. The ASW27 pilot supplied two GPS logger files, which were extracted and analysed. The available data suggested that, at 1314:50, the two ac were 0.88nm apart, with the ASW27 pilot flying eastbound and the PA34 pilot flying southbound. Immediately prior to the ASW27 crossing the PA34's 12 o'clock, at 1315:10, the available data suggested that the ac were some 0.22nm apart, with the PA34 approximately 350ft above the ASW27.

[UKAB Note(1): The glider pilot supplied 2 logger files from 2 independent loggers. Analysis of all 4 pressure sensor and GPS derived altitudes resulted in a number of different values, some of which

suggested a greater vertical separation than the co-altitude situation described by both the pilots. Whilst it is recognised that pilot judgement of altitude between ac is commonly subject to physiological error, it was felt that a co-altitude situation on a clear day with a good horizon could be assessed intuitively and that it was likely the ac were closer in V separation than 350ft at CPA.]

The surveillance data showed that the PA34 pilot made a turn to the R as the two ac crossed; the ASW27 logger data showed the glider pilot turned R after crossing and before continuing on an E'ly track.

Summary

The PA34 and ASW27 came into proximity in Class G airspace 24nm NW of Oxford A/D. Surveillance and GPS derived data showed that the PA34 pilot was in a R turn as the flight paths crossed and that the ASW27 pilot turned R after the flight paths had crossed. Although the PA34 pilot was in receipt of a BS from Oxford ATC, the presence of the ASW27 was unknown to ATC.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings and a report from the appropriate ATC investigation authority.

Board Members first considered the likely conditions prevalent on the day and how an understanding of those could have helped inform the pilots' planning. It was apparent that weather conditions were conducive to thermal cross-country gliding (as opposed to ridge or wave soaring) and, that being the case, would mainly limit glider activity to within the 'thermal layer', i.e. up to the cloud base. The Board opined that the PA34 pilot may have been better served by operating above cloud, but recognised that a multitude of factors were relevant and that this may not have been possible. Nevertheless, likely glider operating conditions and locations was felt worthy of inclusion as a planning consideration. Pilot members also discussed the selection of an appropriate ATS as a valuable planning consideration, especially if the sortie included use of lookout-limiting IFR screens and low-energy general-handling manoeuvres such as stalling. Whilst recognising that the glider may not have been radar significant, some members opined that a TS may have been more appropriate in these circumstances. Members also discussed Rule 23 of the Rules of the Air, (simulated instrument flight), which contains guidance on provision of a competent observer; in this respect, they were pleased to note that the use of IFR screens was no longer a mandatory CAA requirement thereby enabling the student to perform lookout duties whilst the instructor was conducting other tasks.

Ultimately, although the glider pilot had right of way, both aircraft were equally responsible for collision avoidance. The Board opined that the PA34 pilot had seen the glider first, albeit late, and that his subsequent manoeuvre had achieved collision avoidance. The glider pilot's even later visual sighting was non-effective. The Board agreed that the safety barriers pertinent to this Airprox were aircrew rules and procedures, visual sighting and aircrew action, and that safety margins had been much reduced below normal. The Board concluded that these barriers had been minimally effective and the Airprox was allocated a score of 20 on the Event Risk Classification Matrix.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the PA32 pilot and effectively a non-sighting by the ASW27 pilot.

Degree of Risk: B.

ERC Score: 20.