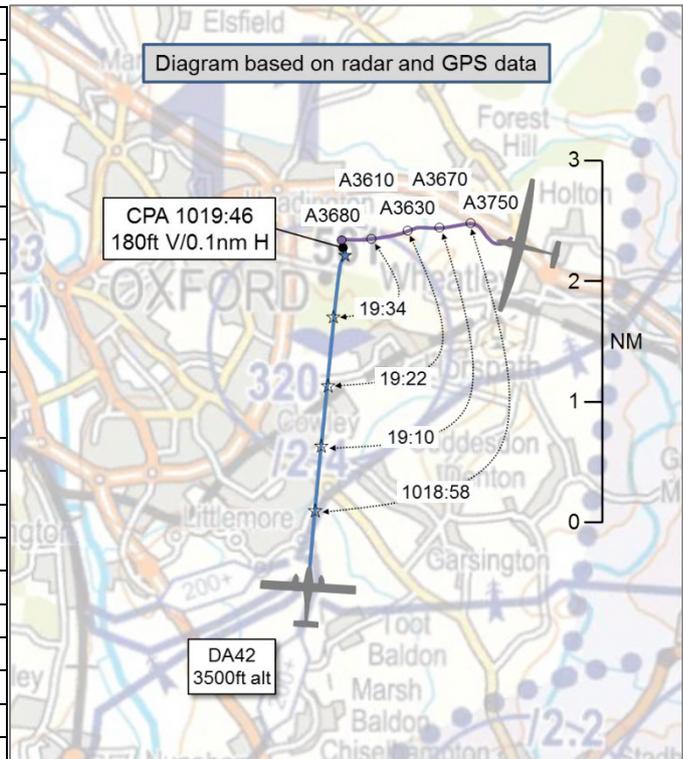


AIRPROX REPORT No 2015131

Date: 31 Jul 2015 Time: 1020Z Position: 5145N 00111W Location: Oxford

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 | | | | | | | | | |
|-------------------|-------------------|--|-------------------|--|--|----------|--------------|----|----------|-----------------|--|
| Aircraft | DA42 | ASW24 | | | | | | | | | |
| Operator | Civ Comm | Civ Pte | | | | | | | | | |
| Airspace | London FIR | London FIR | | | | | | | | | |
| Class | G | G | | | | | | | | | |
| Rules | VFR | VFR | | | | | | | | | |
| Service | None | NK | | | | | | | | | |
| Provider | N/A | NK | | | | | | | | | |
| Altitude/FL | 3500ft | 3680ft | | | | | | | | | |
| Transponder | A, C, S | Not fitted | | | | | | | | | |
| Reported | | | | | | | | | | | |
| Colours | White/blue/orange | White | | | | | | | | | |
| Lighting | HISLs | None | | | | | | | | | |
| Conditions | VMC | VMC | | | | | | | | | |
| Visibility | >10km | NK | | | | | | | | | |
| Altitude/FL | 3500ft | NK | | | | | | | | | |
| Altimeter | QNH (1015hPa) | NK | | | | | | | | | |
| Heading | 015° | NK | | | | | | | | | |
| Speed | 145kt | NK | | | | | | | | | |
| ACAS/TAS | TAS | NK | | | | | | | | | |
| Alert | None | NK </tr <tr> <td colspan="3">Separation</td> </tr> <tr> <td>Reported</td> <td>250ft V/0m H</td> <td>NK</td> </tr> <tr> <td>Recorded</td> <td colspan="2">180ft V/0.1nm H</td> </tr> | Separation | | | Reported | 250ft V/0m H | NK | Recorded | 180ft V/0.1nm H | |
| Separation | | | | | | | | | | | |
| Reported | 250ft V/0m H | NK | | | | | | | | | |
| Recorded | 180ft V/0.1nm H | | | | | | | | | | |



THE DA42 PILOT reports conducting a transit flight with the FO as PF, on a sunny day with FEW-SCT cloud overhead. The crew made late visual contact with a glider, ¼ mile ahead in the left 1030 position, converging from the left, slightly high and in straight-and-level flight. In the little time remaining, the PF made an avoiding-action descending right-turn as the glider effectively passed 250ft overhead. Benson made contact stating that Bicester was active and the crew replied, with information confirming such. The pilot noted that the aircraft would not have actually collided unless either aircraft had deviated from their flight-paths.

He assessed the risk of collision as ‘Medium’.

THE ASW24 PILOT did not complete an Airprox form but was reported as stating that he did not recall seeing a DA42. He provided a GPS flight log file, from which altitude information could be obtained.

Factual Background

The weather at Benson and Brize Norton was recorded as follows:

METAR EGUB 310950Z 17006KT 9999 FEW042 18/06 Q1019 BLU NOSIG
 METAR EGUB 311050Z 16005KT CAVOK 18/05 Q1018 BLU NOSIG
 METAR EGVN 310950Z 19005KT 9999 FEW038 17/06 Q1019 BLU NOSIG
 METAR EGVN 311050Z 18005KT 9999 SCT045 18/05 Q1018 BLU NOSIG

A transcript of the Benson Zone frequency is shown below:

| From | To | Speech Transcription | Time |
|---------|---------|---|----------|
| Zone | DA42 | [DA42 C/S] are you planning on going on route with Brize or Farnborough North? | 10:15:00 |
| DA42 | Zone | Err Brize please, [DA42 C/S] | 10:15:06 |
| Other | Zone | Benson Zone good morning, [Other C/S] is with you outbound V F R towards urm, um, Bagshot Mast for, um, Brighton, currently passing one thousand one hundred feet, one zero one nine, request Basic Service | 10:15:11 |
| Zone | Other | [Other C/S] Benson Zone VFR departure approved Basic Service | 10:15:23 |
| Other | Zone | Basic Service [Other C/S] | 10:15:28 |
| Zone | DA42 | [DA42 C/S] just confirm your P O B | 10:15:40 |
| DA42 | Zone | Three P O B | 10:15:43 |
| Zone | DA42 | [DA42 C/S] traffic right two o'clock three miles manoeuvring indicating two thousand seven hundred feet above | 10:16:57 |
| DA42 | Zone | [DA42 C/S] looking | 10:17:07 |
| Zone | DA42 | [DA42 C/S] traffic right one o'clock six miles opposite direction no height information | 10:17:31 |
| DA42 | Zone | [DA42 C/S] thanks | 10:17:37 |
| Unknown | Zone | Benson Zone [partial C/S], Basic Service, MATZ penetration | 10:17:56 |
| Zone | Unknown | Station calling Benson Zone standby | 10:18:00 |
| Zone | DA42 | [DA42 C/S] squawk three seven one two | 10:18:10 |
| DA42 | Zone | Three seven one two [DA42 C/S] | 10:18:13 |
| Zone | DA42 | [DA42 C/S] contact Brize Radar one two four decimal two seven five | 10:18:43 |
| DA42 | Zone | Brize Radar one two four two seven five, thanks for your help, bye bye | 10:18:47 |

Analysis and Investigation

Military ATM

The incident occurred on 31 Jul 15 at 1020, 5nm north of RAF Benson. The Airprox was between a DA42 and a glider; the DA42 was on handover between RAF Benson and RAF Brize Norton requesting a Traffic Service. The Radar Analysis Cell captured the incident at 1019:46 with 0.1nm horizontal separation based upon the London QNH of 1020 hPa. At 1016:57, Benson called Traffic Information on a non-Airprox Benson squawk and then provided more information at 1017:31 (Figure 1) as, "traffic right one o'clock six miles opposite direction, no height information."

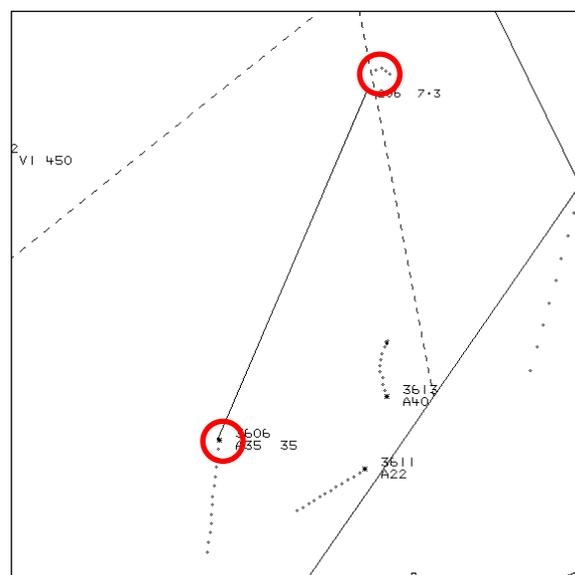


Figure 1: Traffic Information at 1017:21

At 1018:10, a squawk of 3712 was allocated to the DA42 for a radar handover to Brize and, at 1018:43 (Figure 2); the Brize frequency was passed to the crew, which was acknowledged correctly by the aircrew at 1018:54.

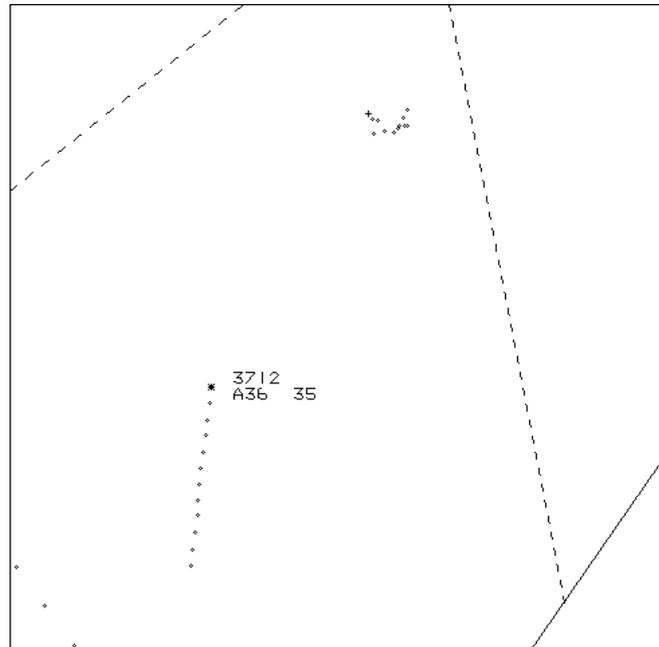


Figure 2: Geometry at 1018:43

The CPA was at 1019:46 (Figure 3), however, the DA42 crew did not contact Brize Radar until 1021:36; they were immediately identified for a Traffic Service.

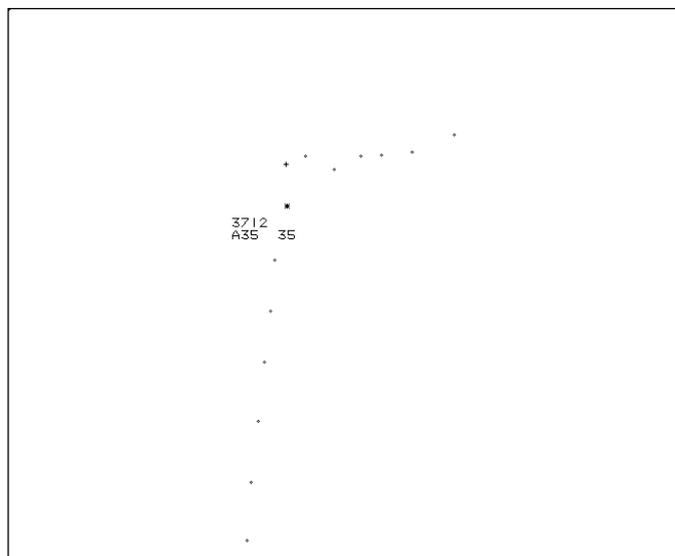


Figure 3: CPA at 1019:46

Benson ATC passed relevant and timely Traffic Information, as required under the conditions of a Traffic Service and for fulfilling the rules of a radar handover. The DA42 pilot was sent to Brize at 1018:43 but did not call the unit until 1021:36. The Airprox occurred after the Benson Traffic Service had terminated and before the DA42 pilot had agreed a Traffic Service with Brize radar. The delay in contacting Brize meant that the crew could not obtain an update on traffic. The DA42 crew had a TAS, but this did not provide information on the non-transponding glider. The crew became visual at a reported range of 0.25nm and, as the respective aircraft were not on a collision course, no avoiding action was taken.

UKAB Secretariat

The DA42 and ASW24 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. The incident geometry was converging and the DA42 pilot was required to give way to the glider². The pilot stated that the report had been delayed 'due to company procedures'. In subsequent discussion with an Airprox Inspector, it was established that a recently installed electronic reporting system had had no facility for remote access and that the pilot had not been able to file until his return from a remote location. It was also established that the system had now been modified to accept reports filed from remote locations.

Summary

An Airprox was reported when a DA42 and an ASW24 flew into proximity at 1020 on Friday 31st July 2015. Both pilots were operating under VFR in VMC; neither were in receipt of an Air Traffic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the DA42 pilot and a reported quote from the glider pilot, a transcript of the relevant RT frequency, radar photographs/video recordings and a report from the appropriate ATC authority.

Members quickly agreed that both pilots had been operating in Class G and that the ASW24 pilot had either not seen the DA42 or had been unconcerned by its proximity. Given the 180ft vertical separation, members agreed that it was likely the former, although members with gliding experience noted he would most likely have heard the DA42 pass close by. The DA42 pilot's description of the glider passing from left to right also caused doubt to be cast on the radar tracks shown, but members were informed that an inaccurate initial reported time of occurrence had resulted in extensive examination of radar recordings and that the depicted interaction was the only identified confliction. Members were satisfied that subsequent confirmation of the revised time of occurrence by the DA42 pilot, and altitude and track information from the glider pilot's GPS flight logger, made the depicted confliction the most likely Airprox.

The DA42 pilot was required to give way to the ASW24 but had not seen it until at close range. The DA42 pilot was able to assess that the aircraft would not collide but the separation was such that he reasonably took action to increase separation by turning to the right and descending. Members speculated that, in the short time available, he may have mis-perceived the glider's aspect and hence recalled that it was crossing from left-to-right when it was shown as right-to-left on the radar recordings and GPS track. The DA42 pilot had reported that Benson had informed them that Bicester was active. Members noted that the radio transcript indicated otherwise and that the Benson controller had in fact provided them with Traffic Information on the conflicting glider before handing them over to Brize Radar. A military ATC member noted that the DA42 crew had been handed over one minute before CPA, and that the Brize Radar controller had promptly provided them with a Traffic Service once contact had been made, but that this was almost 2 minutes after CPA. Members agreed that earlier contact with Brize Radar could well have afforded additional Traffic Information on the converging glider track.

Turning to the cause and risk, members agreed that it was the pilots' responsibility to see-and-avoid in Class G airspace, and that the Airprox had been caused by the late sighting by the DA42 pilot and the non-sighting by the ASW24 pilot. Although the separation was closer than desirable, the Board agreed that effective action had been taken to prevent the aircraft colliding.

Members noted that considerable effort had been expended whilst attempting to ascertain the Airprox position and likely other party due to the inaccurate reported time of occurrence and that Airprox

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c) (2) Converging.

analysis benefited significantly from the timely capture of relevant information. If nothing else, a simple declaration of Airprox time and position to an ATSU fixed the event sufficiently for subsequent investigations to proceed.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the DA42 pilot and a non-sighting by the glider pilot.

Degree of Risk: C.