

AIRPROX REPORT No 2012040

Date/Time: 19 Mar 2012 1530Z

Position: 5109N 00109W (5nm WSW Lasham)

Airspace: LFIR (Class: G)
Reporting Ac Reported Ac

Type: ASH25 BE200

Operator: Civ Pte Civ Pte

Alt/FL: 4000ft↓ 4400ft
QNH (1034mb) QNH

Weather: VMC CLBC VMC CLOC

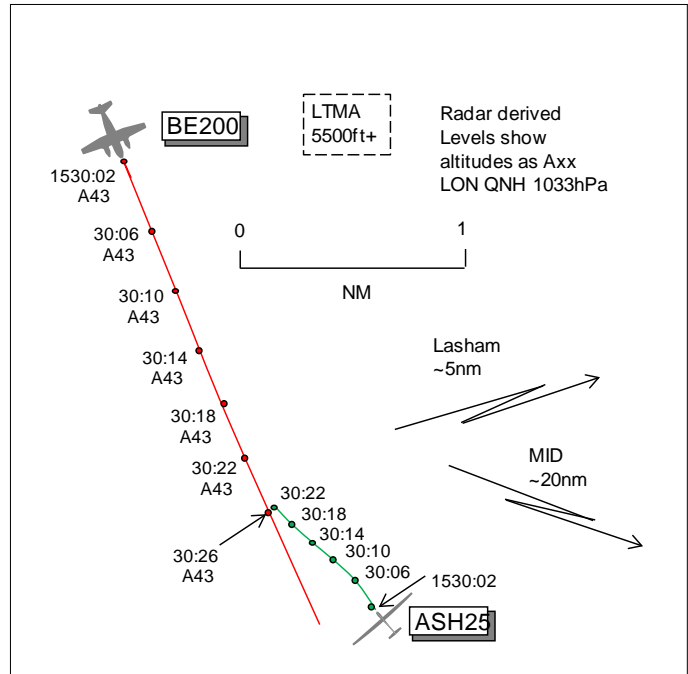
Visibility: 40km >10km

Reported Separation:

100ft V/Nil H 2-300ft
/0.5nm H

Recorded Separation:

<0.1nm



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE ASH25 PILOT reports flying WNW following a cloud street at 4000ft QNH 1034hPa and 60kt and listening out on glider common frequency 130.4MHz. The visibility was 40km flying 1000ft below cloud in VMC and the ac was coloured white/blue. There were many others gliders flying the same cloud street in both directions based on visual sightings, FLARM alerts and RT position reporting. He was looking ahead along the cloud street for a glider, which he had seen thermalling ahead but it had temporarily disappeared as it circled, when the P2, seated in the back seat, called, "aircraft to your R". He then sighted a low-wing twin-engine ac in his 2:30 position about 1nm away at the same level, closing very fast. He immediately descended and the other ac passed directly over the top about 15sec later with an estimated separation of 100ft. The other ac was heard on passing and he could read the registration from the underside of the wing; it did not deviate course or altitude. He assessed the risk as high. He contacted Solent on 120.225MHz as he thought they may be handling the ac, given its proximity to the Solent CTA. After giving his position it was suggested that he called Farnborough, which he did, and the controller confirmed that they were working a twin-engine ac in his area. He advised the controller that he had taken avoiding action on that ac and that he would telephone the ATSU after landing. Later he informed them that he would be filing an Airprox and was given the other ac's type (BE200) and c/s.

THE BE200 PILOT reports en-route to Switzerland, VFR [ahead of IFR airways join] and in receipt of a BS from Farnborough on 125.25MHz, squawking an assigned code with Modes S and C. The visibility was >10km in VMC and the ac was coloured white with anti-collision, wing and tail strobes all switched on. Farnborough Radar was unusually busy so he accepted a BS while awaiting airways joining clearance. He discussed with his co-pilot that both crew members would make vigilant lookout, as it was a known busy area, and they would avoid the Lasham O/H and its ATZ (sic). Earlier several contacts were seen and avoided, in addition to the reporting glider, and were discussed between crew members. Cruising at 4400ft QNH and 220kt the reporting glider was first seen in their 11 o'clock at range 4nm and an early small-angle RH turn was initiated to ensure clearance from it. The relative position of the glider translated anti-clockwise towards their 0930 position, remaining in view ahead of their ac's wing leading edge. The glider began a descent so no further RH turn was taken and it was observed continually by the Commander until it was clearly passing 200-300ft below and roughly 0.5nm away to port, diverging; the divergence was owing to his

early RH turn undertaken. He assessed the risk as none. As he was flying within Class G airspace on a daytime flight in good visibility, he did as required - see and be seen and avoid as necessary. RoA Regulations adherence should have prompted him to maintain course and speed but in fact he did better by initiating an early RH turn and continually observing the glider. He believed there was no risk of collision as both pilots saw the other ac and each took minor avoiding action to increase separation as befits good airmanship in the open FIR. He thought nothing was gained by Airprox reporting in these circumstances. He is interested to hear whether the filing of this Airprox report adds anything to the safety of GA in UK Class G airspace, particularly when the majority of gliders neither use transponders nor RT and both crews took early, proportionate and sensible decisions.

THE BE200 CHIEF PILOT comments that in terms of whether any safety is added to GA in Class G airspace, it does serve to highlight the general difficulty in seeing gliders albeit on this occasion both crews saw each other in time to take avoiding action. Gliders are notoriously hard to see yet seldom communicate with ATSU's, fit transponders, anti-collision beacons or carry high visibility markings. He thought that military gliders belonging to cadet corps carry high visibility markings on the wings but with some penalty in terms of structural life. Whilst appreciating the impact conspicuity measures may have on performance/weight/cost, consideration should be given to mandating such measures for gliders should they wish to share the same airspace with other users for whom the same measures are more usually required. Furthermore, gliders should be mandated to carry at least Mode C transponders such that to any TCAS equipped ac the glider becomes more conspicuous.

THE FARNBOROUGH LARS CONTROLLER reports working LARS W during a very busy session when the BE200 flight called en-route to Switzerland. The ac was identified and placed under a BS and, at the request of the crew, he activated the ac's flight plan. When S of CPT the crew requested a heading for MID and, as the flight was under a BS, he offered a steer of 130° which he noticed the flight did not take; instead it continued through an area with multiple contacts. After a number of miles the crew requested another steer and asked if there was any information regarding their flight plan. He advised a new steer of 110° and that his flight plan was activated. He noticed the BE200 flight take the turn and the crew, in a very convoluted way, made it clear that they were intending to join CAS as per their flight plan. By this point he had received a call from the ASH25 pilot who was told to standby. He coordinated an airways join with LTC and transferred the BE200. He went back to the ASH25 pilot who asked if he had been working a light ac N of Popham at approximately 4-5A. He advised the pilot that he had and believed the ac to be the BE200 but as the frequency was busy the ASH25 pilot advised that he would call when on the ground. He asked if the pilot required a service which was declined. Later the ASH25 pilot telephoned and advised that he would be filing an Airprox.

ATSI reports that an Airprox was reported by the pilot of an ASH25 glider when it came into proximity with a BE200 at altitude 4000ft between Popham and New Alresford.

The ASH25 had departed Lasham and was operating VFR along a 'cloud street' with 'many other gliders'. The ASH25 flight was not in receipt of an air traffic service.

The BE200 flight en-route to Switzerland was in contact with Farnborough LARS (W) on 125.250MHz.

ATSI had access to both pilots' reports, LARS controller report, recorded area surveillance and transcription of frequency 125.250MHz. In addition ATSI contacted the BE200 operator to discuss aspects of the flight plan for that day's flight. Due to elapsed time a copy of the flight plan filed was not available. ATSI also discussed aspects of flight planning and activation with Farnborough ATC.

The prevailing weather in the vicinity of Farnborough and Southampton was:
METAR EGLF 191520Z 25012KT 220V280 CAVOK 13/M00 Q1033=
METAR EGHI 191520Z 28006KT 220V310 9999 FEW048 12/M01 Q1033=.

Prior to departure, normal practice for the BE200 operator was to telephone 'London' and request activation of the flight plan. At the same time, 'London' would customarily instruct the pilot to route

on track CPT whilst remaining clear of CAS, issue an airways SSR code and pass the London frequency to call for join. On this occasion, 'London' was unreachable via telephone. The pilot decided to depart and call RAF Benson. After a short service from Benson it was suggested that the BE200 flight continue en-route by calling Farnborough LARS.

At 1523:00 the BE200 flight called Farnborough LARS (W). The ac was 9.2nm NE of CPT at altitude 4400ft. Details were passed and the pilot requested activation of the flight plan to Berne. Having confirmed the BE200's time of departure the LARS controller stated that the flight plan would be activated. Farnborough ATC stated to ATSI that having received the details, unit procedure would be for the controller to request the unit assistant to forward the details to Flight Plan Reception and request activation of the plan.

The BE200 continued towards CPT at 4400ft and was allocated SSR code 0433. The LARS controller informed the BE200 pilot that it was a BS; however, this was not read-back.

At 1527:10 the BE200 pilot requested a radar heading for MID. At the time the ac was established on a track of 175°, 7.1nm S of CPT at altitude 4400ft. The LARS controller noted it was a BS and offered a steer to MID of 130°.

At 1530:00 the BE200 pilot called the LARS controller stating that the BE200 was becoming, *"...squeezed by airspace all around us and above us in a minute is there a chance you could er give us a er traffic service and a steer round the airspace on the way towards Midhurst."* The controller replied with a steer of 110°; however the request for a TS made within the exchange was not acknowledged. This was answered by the pilot, *"yeah I know the steer to get there I just wanted to keep us out of controlled airspace we're at flight level correction four thousand four (1530:20) hundred feet at the moment..."*

[UKAB Note (1): The Heathrow/Gatwick radar recordings at 1530:02 shows the BE200 5.2nm W of Lasham at altitude 4300ft on a track of 160°, speed 249kt. 2.7nm ahead of the BE200 in its 11 o'clock is a primary only position indication symbol tracking 325°. Correlating this primary return to the ASH25's GPS data-logger confirms its identity as the ASH25 glider. The 2 returns continue to converge, the ASH25's return exhibiting track jitter, appearing to turn about 10° L onto 315° before it fades at 1530:22 in the BE200's 1130 position range 0.25nm. The CPA occurs during the ASH25's radar fade period as the BE200 is seen on the next sweep maintaining altitude 4300ft QNH and passing abeam the ASH25's last recorded position. Taking into account the ASH25's speed and track, it is estimated the ac pass with <0.1nm horizontal separation. The ASH25 data-logger recorded the gliders GPS altitude at 1530:22 as 4029ft and at 1530:30 as 3980ft.]

The ASH25 pilot reported that the back seat pilot had initially spotted the BE200 'to the right'. After the encounter the pilot initially contacted Solent Radar for details of the other ac. As Solent had no knowledge of the traffic it was suggested that the ASH25 pilot contact Farnborough LARS.

At 1530:30 the BE200 pilot asked LARS, *"...are you working on a plan for us?"* The LARS controller replied that the plan had been activated. The BE200 pilot then asked for an airways joining clearance. The LARS controller replied, *"sorry wasn't clear you wanted to join..."*; *"yeah flight level two seven zero Midhurst,"* replied the pilot.

At 1531:40 the ASH25 pilot called Farnborough LARS (W) and was instructed to stand-by. The controller then broke the transmission to instruct the BE200 flight to route towards GWC and issued an airways SSR code. Upon receiving the pilot's read back the controller then cleared the BE200 to join CAS and contact London Control.

The LARS controller called back the ASH25 flight at 1533:10 and there followed a conversation whereby the ASH25 pilot enquired as to whether or not Farnborough had been working a light twin in the area. The ASH25 pilot declined any further service and noted that a call would be made to Farnborough once the aircraft had landed.

Both ac were operating in Class G airspace where the responsibility for collision avoidance rests with the pilots.

The identity of the primary position indication symbol cannot be verified as the reporting ASH25 glider; however, the time, location and level of the encounter suggested a strong possibility that the primary symbol is the ASH25.

IFR flight plans, as filed by the BE200 operator, are handled through the European Integrated Initial Flight Plan Processing System (IFPS). Upon activation of the flight plan, the necessary fpss would have been produced across the relevant London sectors. However, Farnborough, not being a unit normally associated with the flight plan route, would not receive full active details of the BE200's flight. Therefore, even though the Farnborough controller took steps to activate the BE200's flight plan the controller would have had no more details about the flight's intentions other than that passed by RT.

The BE200 had been on the Farnborough LARS frequency for 7.5min before it became known to the controller that the BE200 wished to join CAS. It then took only just over a minute for the Farnborough controller to arrange an airway join with London Control. Farnborough ATC stated to ATSI that unit procedures are in place between Farnborough and LTC for flights calling in the FIR and requesting to join CAS.

When providing a BS, controllers have no obligation to pass TI but, should a controller consider that a definite risk of collision exists, a warning may be issued. Farnborough LARS does not have access to the composite multi-radar surveillance picture used in this investigation. Therefore, it is not possible to say whether or not the same primary symbol observed in this investigation was depicted on the Farnborough LARS (W) situation display.

The Airprox occurred in Class G uncontrolled airspace at altitude 4000ft, 5nm SW of Lasham. The BE200 was under a BS and the ASH25 was not in receipt of an air traffic service. In accordance with the notified procedures for flight in uncontrolled airspace the pilots involved were responsible for collision avoidance.

ATSI elected to follow-up with the operator their procedure for joining CAS on an IFR flight plan. It was suggested to the operator by ATSI, that they might consider including Farnborough as an addressee on their flight plan and, additionally, it was suggested that the operator might consider approaching Farnborough ATC to discuss their operations.

[UKAB Note (2): The RoA Regulations Rule 9 Converging states:-

'(1) Subject to paragraphs (2) and (3) and Rules 10 (Approaching head-on) and 11 (Overtaking), aircraft in the air shall give way to other, converging aircraft as follows:

- (a) flying machines shall give way to airships, gliders and balloons;
- (b) airships shall give way to gliders and balloons;
- (c) gliders shall give way to balloons.

(2) Mechanically driven aircraft shall give way to aircraft which are towing other aircraft or objects.

(3) Subject to paragraphs (1) and (2), when aircraft are converging in the air at approximately the same altitude, the aircraft that has the other on its right shall give way.']

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, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

The BE200 pilot saw the glider at 4nm and altered course slightly to the R, but believed he did not need to give way and should have maintained course and speed. This R turn, Members noted, was in accordance with the RoA for situations where ac are approaching head-on; however, irrespective of the geometry, the overarching Rule was Rule 9: gliders have right of way over powered ac. The flightpath flown by the BE200 pilot had led the ASH25 pilot to commence a descent to avoid the BE200 when he saw the BE200 at a late stage approaching from his R at about the same level. Owing to the disparate separation distances reported, Members were concerned as to whether the BE200 pilot had seen the reporting pilot's glider, or another one. The geometry described by the BE200 pilot of the ASH25 approaching from his 11 o'clock, moving to his L and commencing a descent were correct; however, the minimum separation of less than 0.1nm shown on radar was far closer than the 0.5nm reported by the BE200 pilot and more in line with the glider pilot's report of having read the BE200's registration as it flew above him. Members agreed that, if he had seen the reporting glider, the BE200 pilot should have given it a wider berth. Immediately prior to and at the CPA the BE200 crew was involved in a lengthy RT exchange with LARS W requesting a TS, a steer around CAS and asking whether Farnborough was obtaining an airways joining clearance which may have been a distraction at the time. Following much discussion, Members were in 2 minds on deciding a cause, depending on whether or not the BE200 crew saw the ASH25. If the BE200 pilot had not seen the ASH25 and was reporting on an encounter with another glider, the cause was a non-sighting by the BE200 crew and a late sighting by the ASH25 pilot. In the end, on the balance of probability, Members believed the BE200 crew had seen the ASH25 but had flown close enough to it to cause its pilot concern.

Turning to risk, the BE200 crew was content that their early turn was enough to provide adequate separation from the ASH25, estimating it passed 200-300ft below and 0.5nm clear to their L. From the ASH25's cockpit, the pilot saw the BE200 late and elected to descend, passing an estimated 100ft below it. Although this had been a close encounter, the actions taken by both pilots were enough to persuade the Board that any risk of collision had been effectively removed.

Members were disappointed that the BE200 pilot questioned the value of Airprox reporting in these circumstances. The value of investigating an incident can only be determined once the investigation is completed and appropriate lessons identified. This incident has served to provide reminders about Rules of the Air and the risks of focussing a visual search on a specific aircraft to the detriment of all-round look-out. It should also be seen in context. There are several Airprox occurrences each year involving gliders that cannot be investigated fully because the glider in question could not be traced and therefore no report was available from the pilot. This represents missed opportunities for identifying lessons and the BGA is seeking to encourage glider pilots to submit reports. This initiative should be welcomed as a positive step in promoting safety and an open reporting culture, to the benefit of all aviators sharing crowded UK airspace.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The BE200 pilot flew close enough to cause the ASH25 pilot concern.

Degree of Risk: C.