

## **AIRPROX REPORT No 2013126**

Date/Time: 5 Sep 2013 1305Z

Position: 5055N 00027W  
(0.5nm NE Parham Glider site  
- elevation 110ft)

Airspace: Lon FIR (Class: G)

Reporting Ac Reported Ac

Type: DG505 BE 76

Operator: Civ Club Civ Trg

Alt/FL: 2300ft 2400ft  
QFE (NK) QNH (1010hPa)

Weather: VMC VMC

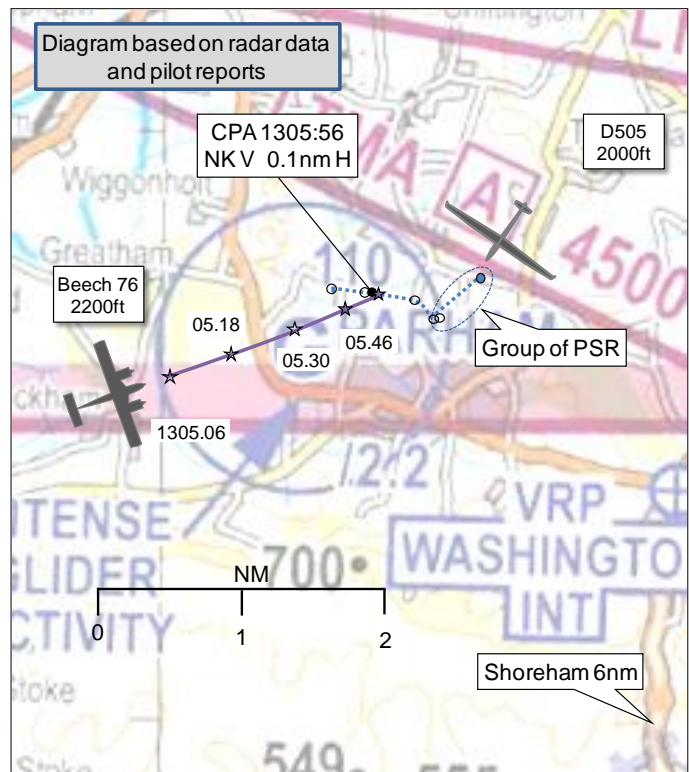
Visibility: 10km CAVOK

Reported Separation:

150ft V/0ft H NK

Recorded Separation:

NK V/0.1nm H



## **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE DG505 PILOT** reports flying a white glider which was neither fitted with lights nor a transponder; it was fitted with a FLARM traffic alerting system. The pilot was flying at 50kt, under VFR in VMC, with 10km visibility in haze, on a basic training flight. He had been in a thermal with two other gliders to the south of West Chiltington and reported that he then tracked back towards Parham, manoeuvring as he did so. There was some uncertainty in the pilot's report of actual headings but, on interview with the pilot, he reported that he conducted numerous turns as he track-progressed and first observed the BE76 appearing in front of his port wing from behind and below, flying straight-and-level [See UKAB Note 1]. Because it approached from behind and below, he had no means of seeing it earlier. When their tracks crossed he estimated it was, 100-150ft directly below him.

[UKAB Note 1: The DG505 pilot initially described flying a westerly heading with the BE76 on a divergent track of 200° (he thought); however, the radar picture shows the BE76 on a north-easterly heading].

He assessed the risk of collision as 'Medium'.

**THE BE76 PILOT** reports flying a white and red aircraft with SSR Mode A, C and S selected. He was operating under IFR, in VMC, on an instrument rating training flight, in level cruise at 130kt and in receipt of a Procedural Service from Shoreham Approach. He had IFR training screens in place to simulate IMC. He reported flying the RNAV approach to Shoreham, routing from BITLI to ADURI, and descending from altitude 5000ft to 2400ft QNH to remain clear of Parham airfield. He did not observe any gliders in the vicinity of Parham, and had not received any information from either Farnborough or Shoreham that the glider site was active.

## **Factual Background**

The weather at Shoreham and Gatwick was recorded as follows:

METAR EGKA 051220Z 14007KT 6000 NSC 22/18 Q1010

METAR EGKK 051250Z 19004KT 140V240 9999 FEW046 29/16 Q1010

## Analysis and Investigation

### CAA ATSI

The incident occurred at 1305, 9.4nm northwest of Shoreham Airport in the vicinity of Parham gliding site within Class G uncontrolled airspace between an DG505 and a BE 76 Duchess. The DG505 glider was operating from Parham Gliding Site and was in a thermal together with two other gliders to the south of the village of West Chiltington. The DG505 was in communication with Parham Gliding Site base frequency 129.97MHz, but was not in receipt of an Air Traffic Service. CAA ATSI had access to the RTF and area radar recordings together with written reports from the DG505 and the BE76 pilots.

The UK AIP ENR 5.5-10 (dated 22 Aug 2013), Aerial Sporting and Recreational Activities, promulgates Parham Gliding Site as Winch and Tow, Upper limit 2000ft, site elevation 110ft, during the hours of daylight and position 505532N 00002828W.

The BE76 was operating from Bournemouth airport on an IFR training flight, inbound to Shoreham for an RNAV approach, missed approach followed by a hold then NDB approach. The BE76 was in receipt of a Procedural Service from Shoreham approach on frequency 123.150MHz. Figure 1 is an extract from the UK AIP page AD 2-EGKA-8-4 (RNAV procedure).

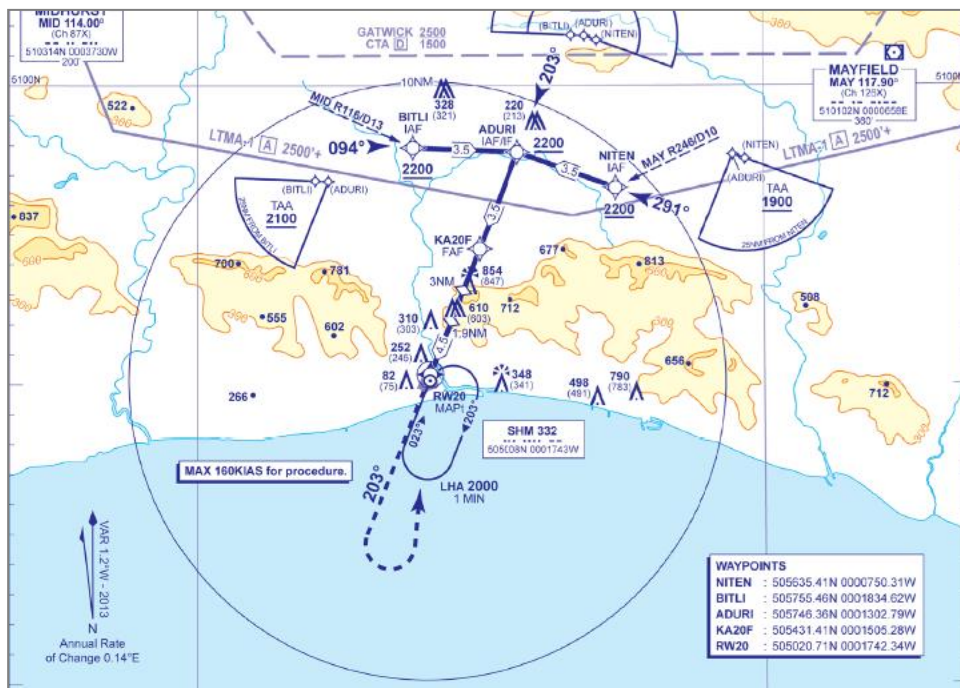


Figure 1 – extract from Shoreham Instrument Approach Chart RNAV (GNSS) RWY 20

The Shoreham controller was providing a combined Aerodrome and Approach control service without the aid of surveillance equipment. The controller's workload was assessed as medium.

The BE76 pilot had previously been in receipt of a Traffic Service from Farnborough LARS (W) and contacted Shoreham at 1302:36, reporting 14nm west of BITLI and requesting the RNAV approach for RW20. The Shoreham controller agreed a Procedural Service and instructed the BE76 pilot to squawk 3762 (Shoreham IFR conspicuity) with QNH 1010. The controller reported no other IFR traffic and instructed the BE76 pilot to arrange his flight to be at BITLI at 2200ft and gave no delay for the RNAV approach to RW20. The BE76 pilot acknowledged correctly and reported descending to altitude 2200ft.

Area radar recording showed the BE76 14nm west-northwest of Shoreham and two likely glider contacts in the vicinity of Parham gliding site (1nm south of West Chiltington), see Figure 2 below.

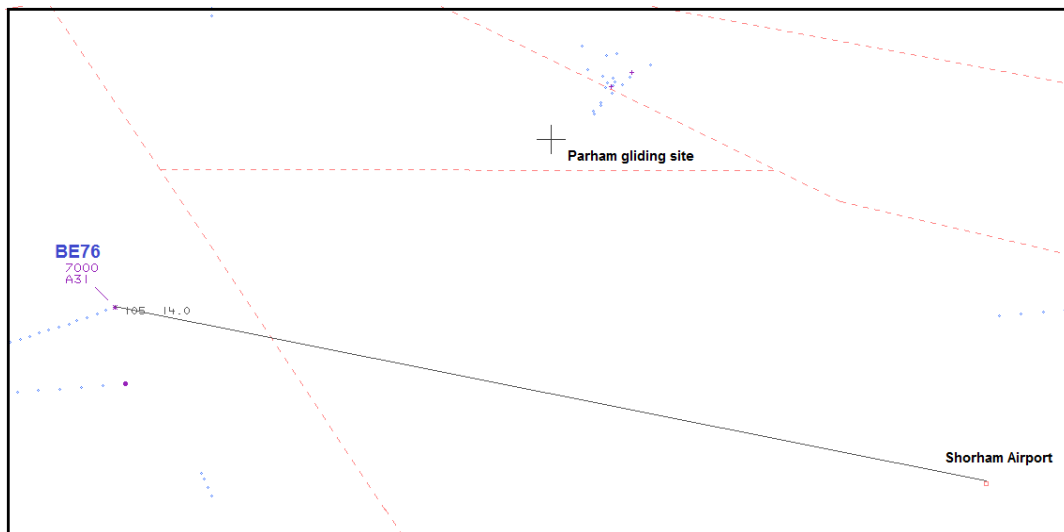


Figure 2 – Swanwick MRT at 1302:36

At 1305:30, the area radar recording showed the BE76, 0.5nm West of Parham gliding site at an altitude of 2300ft. A contact, most likely a glider, was shown manoeuvring 1nm northeast of Parham and in the BE76 pilot's half past twelve at a range of 1.6nm, see Figure 3 below.

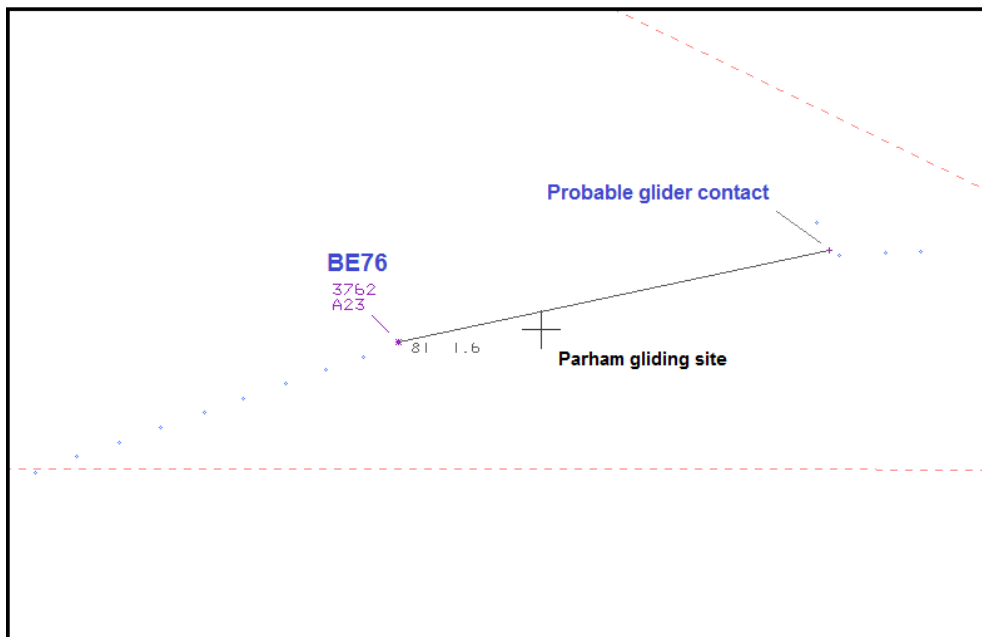


Figure 3 – Swanwick MRT at 1305:30

On the next radar update the glider contact faded from radar. At 1306:22 a probable glider contact appeared North of Parham tracking West, see Figure 4 below.

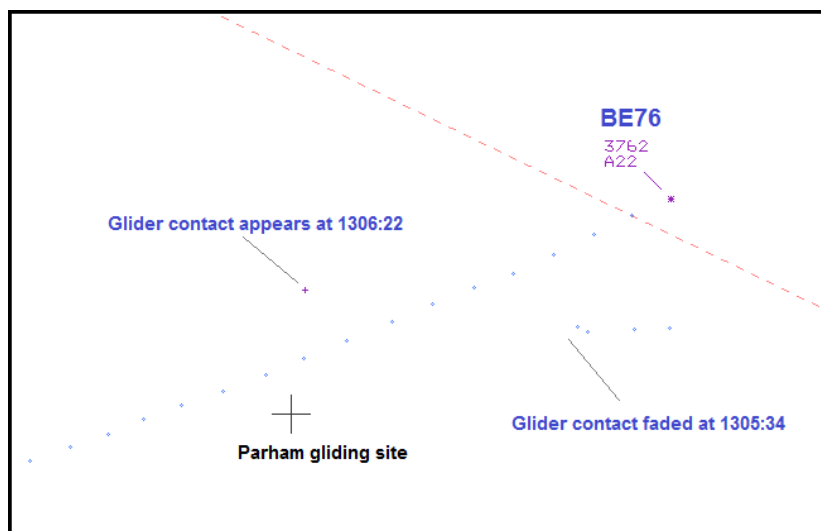


Figure 4 – Swanwick MRT at 1306:22

The geometry of the encounter was consistent with the track of the BE76 and the reported track indicated by the DG505 pilot's written report. However whilst both the unknown contacts were observed tracking west, there were also two other gliders in the vicinity and it was not possible to determine if the two unknown radar contacts were from the same aircraft. The BE76 pilot's written report indicated that he only descended to 2400ft whilst in the vicinity of Parham and did not observe any glider landing or departing from the airfield. The BE76 continued with the approach without further incident. No RTF reports were made to Shoreham by the BE76 pilot regarding the close proximity of a glider.

The BE76 was in receipt of a Procedural Service from Shoreham Approach. CAP774 (UK Flight Information Services), Chapter 5, paragraph 5, states:

'The controller shall provide traffic information, if it is considered that a conflict 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 controller may, subject to workload, also provide traffic information on other aircraft participating in the Procedural Service, in order to improve the pilot's situational awareness.'

The Shoreham controller was not aware of the gliding activity and was not able to provide any relevant traffic information to the BE76 pilot. The BE76 pilot was operating in Class G uncontrolled airspace, where the pilot is wholly responsible for collision avoidance.

## Summary

The incident occurred within Class G airspace approximately 0.5nm northeast of Parham glider site. The Beech 76 pilot was operating VMC under IFR, but simulated IMC (with IFR training screens fitted), conducting an RNAV approach to Shoreham, and in receipt of a Procedural Service from Shoreham Approach. The DG505 pilot was manoeuvring under VFR in VMC to the northeast of Parham. Both the pilots were entitled airspace users and, notwithstanding the requirement for both pilots to avoid a collision, the Beech 76 pilot was required to give way to the glider. The DG505 pilot did not take any avoiding action due to late sighting; the Beech 76 pilot did not see the glider.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, and radar photographs/video recordings.

The Board first considered the actions of the glider pilot and noted that he was operating in accordance with normal procedures in manoeuvring to take advantage of areas of lift as he tracked towards his destination of Parham. Turning to the BE76 pilot, the Board noted that he was flying in accordance with the published RNAV procedure, in Class G airspace, and with a suitable ATS. Notwithstanding, it was noted by the Board that the BE76 crew were operating with IFR screens in place and, whilst they were not thought to have impeded the safety pilot's view in this instance, it was worth noting that regulations have recently changed to allow for the use of head worn visors in order to allow the safety pilot an unimpeded lookout.

When discussing the BE76's routing, the gliding Member noted that, although the top height of Parham is marked on the ERC as 2200ft, in fact, with aero-tow, this can be much higher; pilots should expect to see gliders operating up to 4000ft in the vicinity of the airfield. In addition, when the weather permits, the South Downs is often an area of intense glider activity even away from the promulgated glider sites. Therefore, given the high likelihood of encountering gliders in the area, and particularly near to Parham and the South Downs, the Board discussed whether Parham should be annotated on the Shoreham Approach Plate as a warning to pilots that, in VMC, effective lookout needed to be maintained. Associated with this discussion, the Board opined that it would be advantageous if the Shoreham procedures avoided the known glider areas either horizontally or vertically (recognising that there were real constraints on the procedures as a result of adjacent controlled airspace). Specifically, were Shoreham to exclude BITLI from its approach procedure, this would allow aircraft to route direct to ADURI, which might mean that there was less likelihood of overflying Parham. The Board agreed therefore that there would be value in recommending that Shoreham review their approach procedures to see whether they could be made more glider-aware.

In assessing the cause and risk of collision, the Board agreed that the Airprox occurred as a result of a non-sighting by the BE76 pilot and, effectively, a non-sighting by the glider pilot due to the BE76 approaching the DG505 from behind. Because the glider pilot had had little or no chance of taking effective avoiding action, they were unanimous in agreeing that the lack of collision had largely been due to providence. It was therefore agreed that this incident was Risk A; a situation that stopped short of an actual collision, where separation had been reduced to the minimum, and chance had played a major part in events.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

<u>Cause:</u>	A non-sighting by the BE76 pilot and, effectively, a non-sighting by the DG505 pilot.
<u>Degree of Risk:</u>	A
<u>ERC Score<sup>1</sup>:</u>	100
<u>Recommendation(s):</u>	Shoreham review their IFR approach procedure tracks with consideration for intensive gliding operations in the area.

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<sup>1</sup> 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.