

## **AIRPROX REPORT No 2013176**

Date/Time: 1 Dec 2013 1213Z (Sunday)

Position: 5120N 00132W  
(Rivar Hill Glider Site)

Airspace: London FIR (Class: G)

Aircraft 1                      Aircraft 2

Type: Puchacz Glider              Cessna 175

Operator: Civ Club                      Civ Pte

Alt/FL: 1500ft                      2000ft  
QFE (NK hPa)                      NK (1014hPa)

Conditions: VMC                      VMC

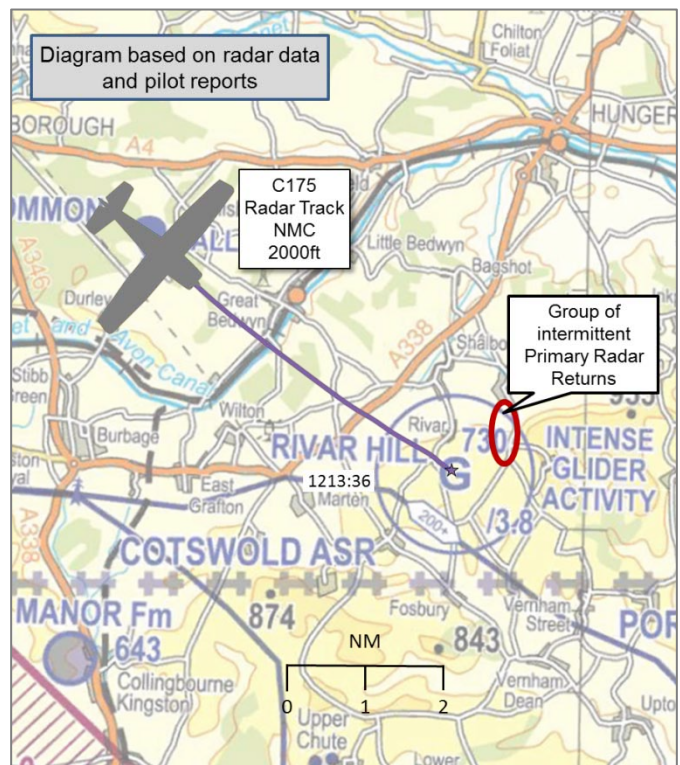
Visibility: 30km                      10km

Reported Separation:

2-300ft V/0m H              3-400ft V  
2-300yds H

Recorded Separation:

NK



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

**THE PUCHACZ GLIDER PILOT** reports flying a white aircraft VMC, 1000ft below the cloud-base, with no radio or transponder fitted, and that winch launches on that day were being carried out to between 1500ft and 2100ft agl. He was carrying out a winch launch from south to north at 58kt, and at 1500ft, whilst still climbing on the cable, he looked to the north and saw a 'white, single-engine high-wing monoplane, with fixed undercarriage' in his 10 o'clock, about 0.5nm away, 'between 200 and 300 feet above', approaching on a 'direct intercept course'. The glider pilot aborted his launch by adopting a nose down attitude, turning to the left to keep the C175 in sight and releasing the winch cable, which broke at the weak-link; he then saw the light aircraft overfly his glider without taking any apparent avoiding action. He assessed the risk of collision as 50%



Figure 1 Puchacz SZD-50-3  
(Courtesy of SZD Website)

**THE CESSNA 175 (C175) PILOT** reports flying VMC, 500ft below cloud, heading 150° at 110kt with navigation lights illuminated and transponder Modes A and C selected. Having climbed to 2000ft, his intention was to route to Andover to position for right-base for RW25 at Thruxton because this routing would have kept him away from Danger Area D126 and clear to the west of Rivar Hill glider site (Route B in Figure 2). The pilot was aware of the Gliding Site en-route but the day had started with a low cloud base which had risen significantly during the morning; having been a glider pilot, he was aware that it was not a good 'thermal type of day', so he did not expect to see much gliding activity but was 'aware of the situation'. Around the mid-point of his route, as he had passed over the River Kennet, he saw what he thought to be a single-seat, medium-performance glider, possibly a red, or dark

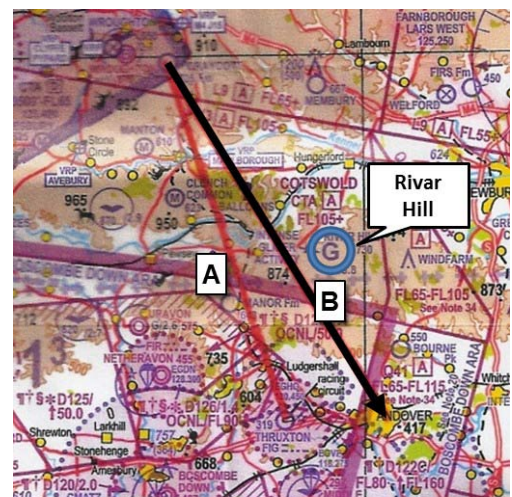


Figure 2

coloured, 'K13'. The glider he saw was on an almost reciprocal track, he recalls, but was far enough away that 'it was not even a slight hazard'. The C175 pilot assessed that the glider he saw was 3-400ft below him and 2-300 yards away and he took no action as he did not perceive that there was a hazard at all. There was 'very little flying' that morning as the weather had only recently improved and, whilst acknowledging that there may have been another glider in the area that he did not see, the C175 pilot does not recall seeing any other traffic.



Figure 3 ASK13 (K13)

He assessed the risk of collision as 'None'.

**THE SHALBOURNE SOARING SOCIETY** reports gliders were being launched by winch from south to north, and that Rivar Hill gliding site is authorised to winch-launch up to 3000ft. The cloud-base was reported as 2500ft agl with a northwesterly wind at 8kt and over 30km visibility. As well as the glider pilot, 2 club members at the launch point observed the C175 overflying the gliding site and agreed with the glider pilot's assessment that it had over-flown the glider by around 2-300ft. Figure 4 shows the estimated track of the C175.

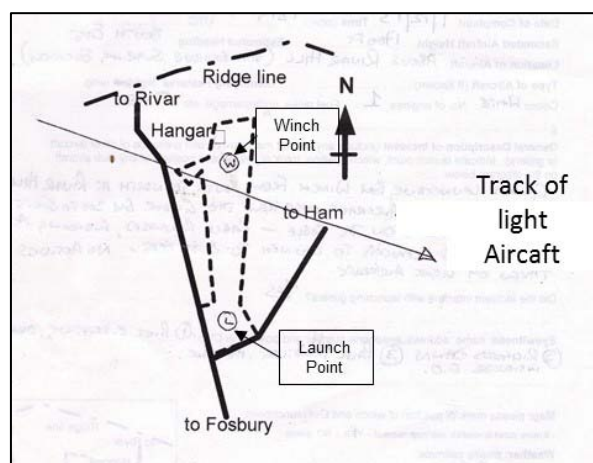


Figure 4

## Factual Background

The weather at Boscombe Down at 1150 was recorded as:

METAR EGDM 011150Z 32005KT 9999 BKN026 06/05 Q1033 BLU

Rivar Hill Glider Site is published in the UK AIP<sup>1</sup> with winch-launches up to 3000ft agl and displayed on the 1:250,000 chart (Figure 5), with winch-launches up to 3,800ft amsl and an aerodrome elevation of 730ft.

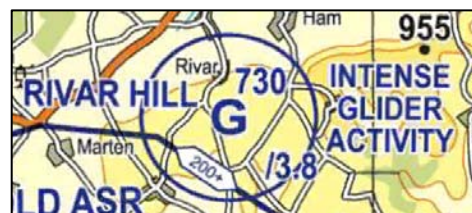


Figure 5

## Analysis and Investigation

### UKAB Secretariat

The C175's track is shown squawking Mode 3/A 7000 with no Mode C, on the Heathrow 10 radar recording. It passed overhead Rivar Hill Gliding Site from northwest to southeast at 1213:36. The Puchacz glider is not shown on the radar recording but a group of intermittent Primary Radar returns are shown to the northeast of the aerodrome; these cannot be positively identified as returns from aircraft but they are commensurate with those of manoeuvring gliders.

<sup>1</sup> UK AIP ENR 5.5-10

Both pilots had the responsibility to avoid a collision.<sup>2</sup> The C175 pilot was flying in the vicinity of Rivar Hill Gliding Site and was required to conform to the pattern of traffic formed by other aircraft intending to land at that aerodrome or keep clear of the airspace in which the pattern is formed<sup>3</sup>

## Comments

### BGA

The Puchacz is a two-seat training glider. It is very difficult for glider pilots to see other traffic during a winch-launch due to the steep angle of ascent and the concentration required, consequently, the locations of many glider sites are published, along with details of their launch limits, to enable other airspace users to avoid coming in to conflict with gliders and launch cables during this vulnerable phase of flight. It is notable that, in this case, the Puchacz pilot saw the C175 and, by releasing the launch cable early, resolved what could otherwise have been a very close encounter or a tragic accident.

## Summary

An Airprox was reported at Rivar Hill Gliding Site, in Class G airspace between a Puchacz Glider, which was carrying out a VFR winch-launch, and a Cessna 175 flying VFR at 2000ft. The glider pilot, saw the C175 and aborted his launch by adopting a nose down attitude, turning to the left to keep the C175 in sight and releasing the winch cable, which broke at the weak-link. The C175 was shown on the radar recording overflying the Rivar Hill Glider Site, the glider was not displayed on the radar recording.

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

Information available included reports from the pilots of both aircraft, radar photographs/video recordings, and reports from the appropriate operating authorities.

Turning first to the Puchacz pilot's actions, a Board member with experience flying this type of glider commented that it would have been extremely difficult for the pilot to have seen the C175 whilst still climbing steeply and attached to the winch cable, particularly when flying solo; the Puchacz pilot had done well to spot the C175 in time and take avoiding action, and the Board commended him for his situational awareness and prompt actions. It was clear that his left-hand descending avoiding action had been taken very rapidly, leading to the weak-link in the winch-cable breaking probably due to increased loading just before release.

As for the C175 pilot, the Board greatly appreciated his open and honest report, which included the map of his planned routing. It was clear to the Board that he was aware of the location of Rivar Hill Gliding Site, of glider operations in general, and had planned appropriately. However, it appeared that in execution of his flight he had made a navigation error and had inadvertently over-flown the launch-site.

The Board quickly agreed that the cause of the Airprox was that the C175 pilot had flown through a promulgated and active glider site and into conflict with the glider, which he did not see. The C175's track had passed directly across the line of the winch-launch and the Board agreed that there had been a high chance that it could have collided with either the Puchacz or the launch-cable. Nonetheless, the glider pilot's actions, albeit taken at the last minute, had been effective in preventing a collision and the Board agreed that the Degree of Risk was B, safety margins had been much reduced below normal.

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<sup>2</sup> Rules of the Air 2007, Rule 8, Avoiding Aerial Collisions

<sup>3</sup> Rules of the Air 2007, Rule 12, Flight in the vicinity of an aerodrome

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

Cause: The C175 pilot flew through a promulgated and active glider site and into conflict with the glider, which he did not see.

Contributory Factor(s): The C175 pilot did not follow his planned route.

Degree of Risk: B

ERC Score<sup>4</sup>: 20

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<sup>4</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.