## AIRPROX REPORT No 2018062

Date: 25 Apr 2018 Time: 0956Z Position: 5055N 00026W Location: 2nm ESE Parham

## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|---|---|---|
| Aircraft | LS4 | Citation CJ4 |
| Operator | Civ Glider | Civ Exec |
| Airspace | London FIR | London FIR |
| Class | G | G |
| Rules | VFR | VFR |
| Service | AGCS | Basic |
| Provider | Parham | Shoreham |
| Altitude/FL | NK | 2200ft |
| Transponder | Not Fitted | A, C, S |
| **Reported** | | |
| Colours | White | White, green, gold. |
| Lighting | Nil | Strobes, beacons and pulsing recognition lights |
| Conditions | VMC | VMC |
| Visibility | 25km | 10km |
| Altitude/FL | 2100ft | 2200ft |
| Altimeter | QNH (1014hPa) | QNH |
| Heading | 270° | NK |
| Speed | 60kt | 200kt |
| ACAS/TAS | FLARM | TCAS II |
| Alert | None | None |
| **Separation** | | |
| Reported | 0ft V/500m H | 200ft V/0.5nm H |
| Recorded | NK | |


**THE LS4 PILOT** reports that they spotted a jet approaching their position from the south-west. It appeared to be at the same height and it was clear that its track was going to pass close in front of the glider. They waggled their wings to alert the other pilot to their presence, but there was no indication that the other pilot had seen them. In the end, the glider pilot assessed that they wouldn't collide and avoiding action was not taken; however, had either track changed by just a very small degree, the risk of impact would have been high.

They assessed the risk of collision as 'Medium'.

**THE CITATION PILOT** reports that he had been cleared by London to route directly to BITLI, (the start of the RNAV procedure for RW20 at Shoreham). Leaving CAS by descent, they continued as cleared down to 2200ft and called Shoreham. The co-pilot spotted a glider passing down the starboard side, in the opposite direction at a distance of 0.5nm. It was difficult to spot against the background of scattered white clouds and was not operating on the same radio frequency. In the time between seeing it and going past there was no time to take avoiding action.

He assessed the risk of collision as 'Medium'.

## Factual Background

The weather at Shoreham was recorded as follows:

```
METAR EGKA 250950Z 22015KT 9999 -SHRA SCT018 12/08 Q1014=
```

## Analysis and Investigation

### UKAB Secretariat

The Citation was believed to be receiving a Basic Service from Shoreham at the time of the incident but, due to the time elapsed in receiving the report, there was no RT transcript available. Although Shoreham do not operate with radar, the NATS radars captured the Citation in its descent from controlled airspace and transiting at 2200ft to the south-east of Parham, positioning for the approach. There were a number of primary only contacts in the vicinity of the Citation but none remained on the radar long enough to be positively identified as the LS4. The closest and most likely being at 0955:51 when a primary only contact on a westerly heading appeared for 3 radar sweeps before fading.

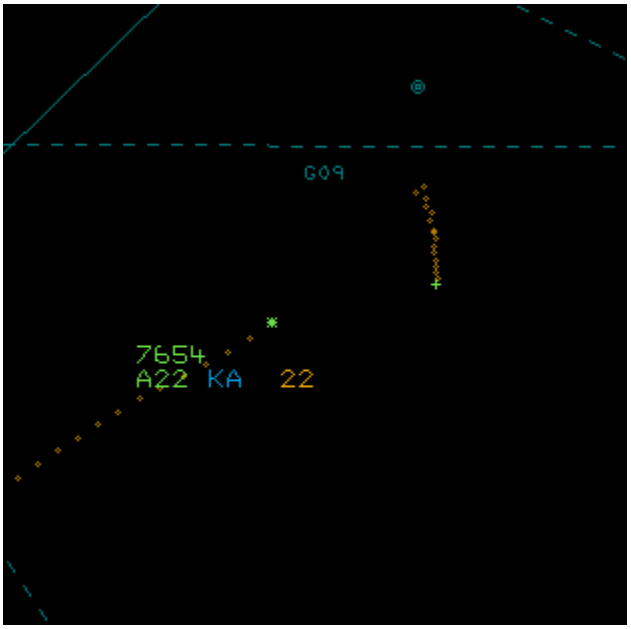



Figure 1: 0955:12

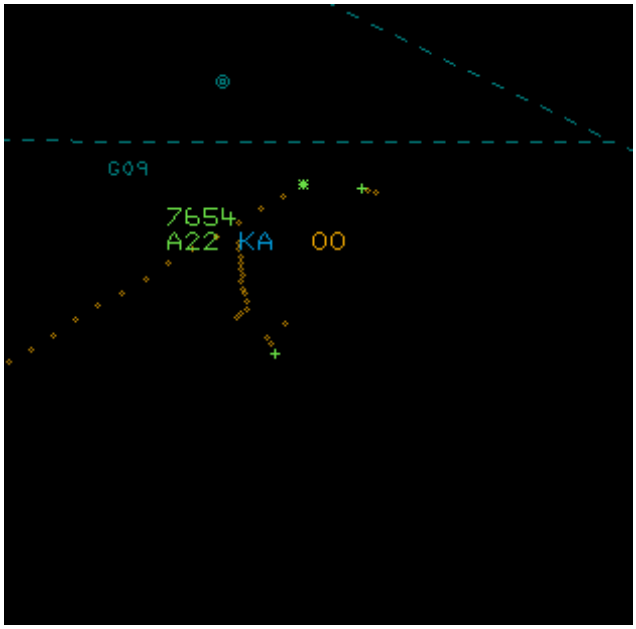



Figure 2: 0955:51

Citation Squawking 7654

The LS4 and Citation pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[1]. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right[2]. If the incident geometry is considered as converging then the Citation pilot was required to give way to the glider[3].

## Comments

### BGA

This is a busy GA area and the LS4 pilot is to be commended for their effective lookout and calm assessment of the risk of collision.

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on.
[3] SERA.3210 Right-of-way (c)(2) Converging.

**Summary**

An Airprox was reported when a LS4 and a Citation flew into proximity near Parham at 0955hrs on Wednesday 25th April 2018. Both pilots were operating under VFR in VMC, the glider was not in receipt of an ATS and the Citation was believed to be receiving a Basic Service from Shoreham.

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

Information available consisted of reports from the pilots of both aircraft and radar photographs/video recordings.

The Board first looked at the actions of the LS4 pilot. They were operating in Class G airspace a short distance away from Parham glider site. They had seen the Citation approaching, and tried to get the other pilot's attention by waggling their wings. The Board noted that if the glider pilot was concerned at this point, earlier avoiding action may have been prudent in case the other aircraft made any unexpected track changes. Members acknowledged that, after watching the Citation close, the glider pilot was content that they would not collide and so avoiding action was not necessary.

The Board then turned to the actions of the Citation pilot who was flying an RNAV procedure to Shoreham in Class G airspace. There was some discussion by Board members familiar with the procedure about whether the approach could have been made from the east rather than the west thus avoiding Parham which was known to be a busy glider site. However, it was noted that since downgrading from full ATC, Shoreham have withdrawn this procedure anyway so it was not likely to be an issue for the foreseeable future. Members noted that Shoreham ATC do not have radar and so could therefore not offer a radar service. As a result, once the Citation pilot had left airways, he was not likely to receive any Traffic Information other than from his TCAS II, which in this case was not compatible with the glider's FLARM. Some members wondered whether he would have been better placed by calling Farnborough for a radar service, especially given that there was an 1800ft cloud base on the day. However, they conceded that given that he was making an approach to Shoreham, he probably wanted to be on their frequency as soon as practical in order to receive airfield information: being a locally based operator, members presumed that the pilot was no doubt aware of the limits of a Shoreham Basic Service and the propinquity of Parham to the Shoreham RNAV procedure. Although the Citation pilot was nominally required to give way to the glider if converging, members noted that he had reported that it was difficult to spot initially and, once seen, there was no time to take any avoiding action.

The Board briefly looked at the actions of the Shoreham controller but, given that they could only provide a Basic Service without the use of radar and had no way of knowing that the glider was operating where it was, the Board thought that there was little more that they could have done to improve the situation.

Finally, the Board discussed the cause and risk of the Airprox. Some members thought that the incident had resulted from a late sighting by the glider pilot and effectively a non-sighting by the Citation pilot. Others thought that they had seen each other as early as was practical and that this was just a simple conflict in Class G airspace. After some debate as to how close the Citation had actually come to the glider, the Board agreed that both pilots' descriptions of the incident and their assessments of the risk indicated that the incident was probably best described as the LS4 pilot being concerned by the proximity of the Citation. Given that the glider pilot had been visual with the Citation throughout and had assessed that there was no collision risk, the Board quickly agreed that although safety had been degraded, there had been no risk of collision; risk Category C.

## PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The LS4 pilot was concerned by the proximity of the Citation.

Degree of Risk: C.

Safety Barrier Assessment[4]

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

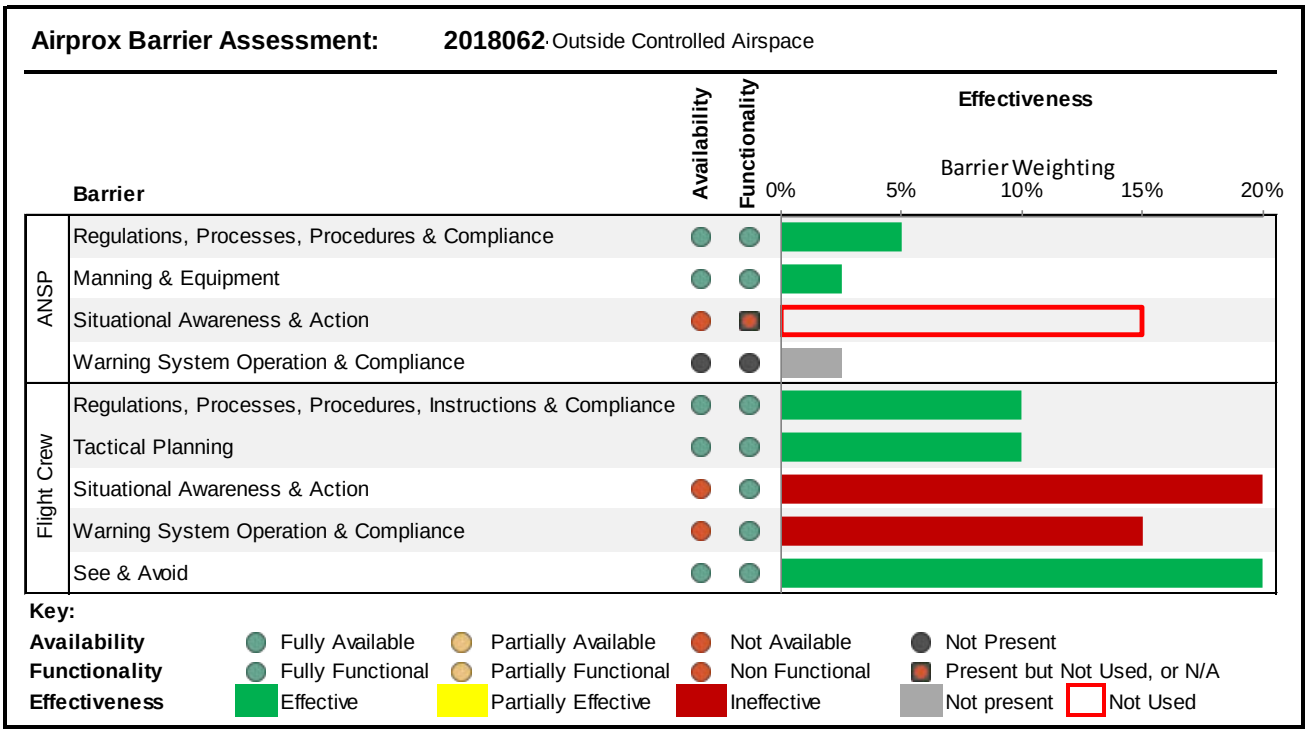
**ANSP:**

**Situational Awareness and Action** were assessed as **not used** because Shoreham do not have a radar and had no knowledge of the glider.

**Flight Crew:**

**Situational Awareness and Action** were assessed as **ineffective** because neither pilot had any information about the other.

**Warning System Operation and Compliance** were assessed as **ineffective** because although the Citation had TCAS II and the glider was fitted with FLARM, they are not compatible and could not warn their respective pilots about the other aircraft.




[4] The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.