

AIRPROX REPORT No 2022079

Date: 08 May 2022 Time: 1521Z Position: 5219N 00020W Location: Kimbolton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C150	Glider
Operator	Civ FW	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	NK
Service	AGCS	NK
Provider	Sibson	NK
Altitude/FL	FL033	NK
Transponder	A, C, S	None
Reported		
Colours	White, Blue	White
Lighting	Beacon, Nav, Strobe, Landing	NK
Conditions	VMC	NK
Visibility	>10km	NK
Altitude/FL	3200ft	NK
Altimeter	QNH (1026hPa)	NK
Heading	210°	NK
Speed	60kt	NK
ACAS/TAS	Not fitted	Unknown
Alert	N/A	Unknown
Separation at CPA		
Reported	0ft V/10m H	NK
Recorded	NK V/0.1NM H	



THE C150 PILOT reports that the crew was a PPL student having a lesson with flying instructor on board. Prior to flight, the instructor and student were both aware of a NOTAM regarding gliding at Deenethorpe and the instructor (who had just been flying) commented that there was a lot of traffic around. At the time of the incident (about 30min into the flight), the student was practising stall recovery and had just carried out a full HASELL check, including a 360° orbit for lookout. Neither the instructor nor student saw any traffic. They throttled back and maintained attitude to induce a stall and the stall warning sounded. Just prior to entering the stall, a glider pulled across the front of them at very close range (its fuselage filling more than half the windscreen), banking left. There was no time to react.

The pilot assessed the risk of collision as 'High'.

THE GLIDER PILOT could not be traced.

THE SIBSON AGO reports that there was no communication about the Airprox on the frequency at the time and therefore they could not add any further detail.

Factual Background

The weather at Wittering was recorded as follows:

METAR EGXT 081450Z AUTO 23002KT 9999 -RA SCT045/// 18/07 Q1027=

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radars was undertaken. The C150, squawking 7000, could be identified using Mode S information and at 1520:07 had conducted a 360° turn as described in the pilot's report (Figure 1). At this stage no gliders could be seen in close proximity to the C150, however the radar showed a number of primary contacts further away that were probably gliders. At 1520:47 the C150 was flying on a southerly heading and a primary contact, likely to be the glider, had appeared on the radar 0.6NM from the C150 (Figure 2). Radar CPA occurred at 1520:58 with the two aircraft indicating 0.1NM apart laterally. The altitude of the glider was unknown.

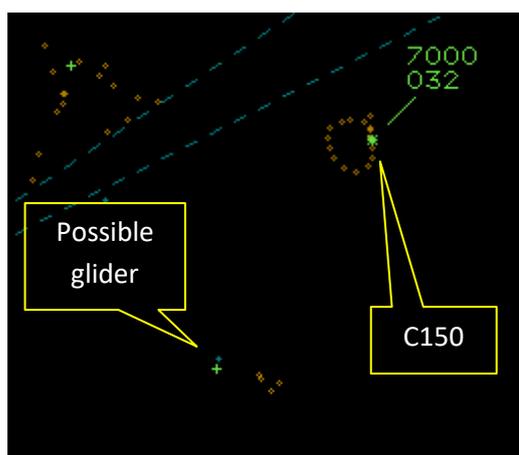


Figure 1 - 1520:07

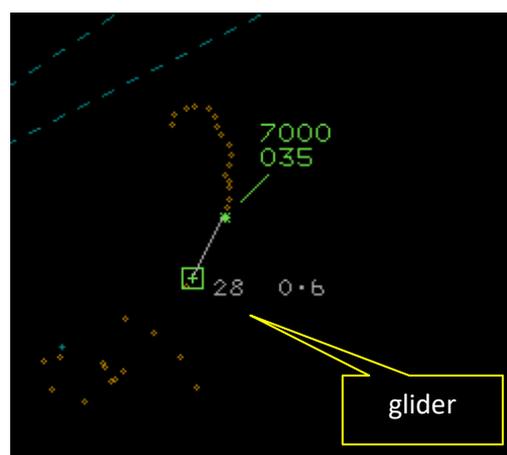


Figure 2 - 1520:47



Figure 3 - 1520:58 CPA



Figure 4 - 1521:02

However, following radar CPA, the primary contact faded from radar and reappeared every few sweeps, still in the vicinity of the C150. It is possible that the glider had been manoeuvring above the C150 without being seen and then descended down to cross ahead of the C150, see Figures 5-7.

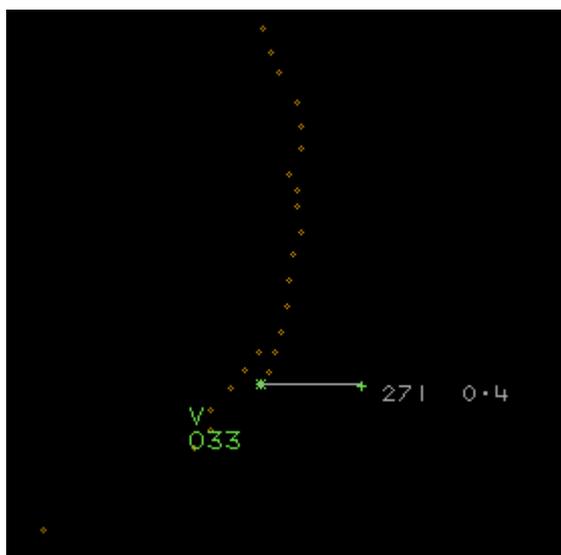


Figure 5 - 1521:06

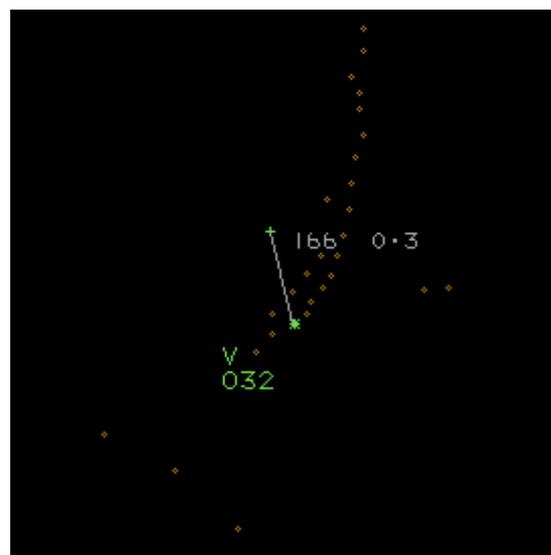


Figure 6 - 1521:22

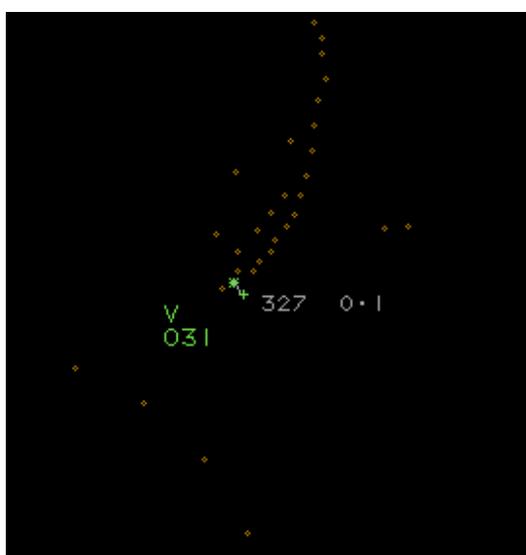


Figure 7 - 1521:26

The C150 and glider 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 C150 pilot was required to give way to the glider.³

Comments

AOPA

In an area where radar services are limited, lookout and electronic conspicuity are the barriers against MAC. In this case, EC wasn't available and the final barrier was lookout. Even with heightened lookout, in this case pre-stalling checks, lookout has to be effective. Even so, aircraft can be missed; numerous reasons could be attributed to this: shielded or obscured in the turn by the high wing, or by the engine cowling, or on a constant relative bearing. Following the startle factor of an Airprox, it would be of great help to Airprox investigations if, after an Airprox, pilots reported it to an ATC unit.

¹ (UK) SERA.3205 Proximity.

² (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

³ (UK) SERA.3210 Right-of-way (c)(2) Converging.

BGA

It is frustrating that efforts to trace the glider pilot involved failed, as the aircraft appear to have passed very close to each other. With the glider banked over and the C150 at an unusually high nose attitude, this very likely reduced the likelihood of a timely sighting for all the pilots. There are three active gliding clubs within ten miles of the Airprox location so, on a good soaring day (which this was), an increased level of glider traffic would be expected, as the C150 crew had briefed and had performed a clearing turn to try and avoid.

Summary

An Airprox was reported when a C150 and a glider flew into proximity at Kimbolton at around 1521Z on Sunday 8th May 2022. The C150 pilot was operating under VFR in VMC and was listening out on the Sibson frequency. The glider pilot could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the C150 pilot and radar photographs/video recordings. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

The Board first looked at the actions of the C150 pilot. They had been undertaking a stalling exercise in the Kimbolton area. Members noted that it was difficult to get a LARS service in this area, particularly at the weekend when a LARS was not available from the local RAF ATSU's. The C150 instructor had noted that there was a gliding NOTAM and that, during a previous flight, they had seen glider activity, causing some members to wonder whether a different area could have been chosen for the stalling exercise. However, others countered that there were numerous gliding sites in the area, that on a good gliding day gliders were likely to be encountered all over the country and so the pilot had probably had very little choice when it came to choosing a suitable location. The C150 was not fitted with any EC to provide any prior warning about the glider; consequently, without an ATS or EC, the pilot had only had the generic information that they had known gliders were operating in the area prior to getting airborne, but not specific information about the Airprox glider (**CF1**). Members noted that the pilot had correctly performed a 360° clearing turn prior to entering the stall but, when they had been performing that turn, the glider would have been in the region of 1NM away and noted that it was notoriously difficult to spot gliders at range. Some members noted that lookout was part of the HASELL checks and reminded pilots of the importance of ensuring adequate lookout is maintained throughout any manoeuvring. However, when entering the stall, the aircraft would have been in a nose-high attitude, with the result that anything directly ahead would have been obscured, and it was likely that the glider would have been obscured to the C150 pilot by the engine cowling at this point (**CF3**). Consequently, the C150 pilot had not seen the glider until the last possible moment, and too late to have taken any avoiding action (**CF2**).

The Board then turned to the glider pilot. Members were disappointed that the glider pilot could not be traced – without their report, it was not known whether the pilot had seen the C150 and taken any action or not. Members thought it likely that the glider had not been fitted with EC equipment commonly fitted to gliders (because subsequently it could not be traced), therefore it was highly likely that the glider pilot also did not have any prior situational awareness about the C150.

When determining the risk, members had very little factual information to go on, with only one pilot report and no clear radar picture, members had to rely on the C150 pilot's narrative. However, the C150 pilot had described a very close encounter with a separation of only 10m and, even taking into consideration the pilot had likely been startled and therefore could have recalled the incident as closer than it had been, still members thought that the very late sighting, with no time for avoiding action and minimal separation, described a situation where providence had played a major part in the event and there had been a serious risk of collision; Risk Category A (**CF4**).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2022079				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
1	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
• See and Avoid				
2	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots
3	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
• Outcome Events				
4	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: A.

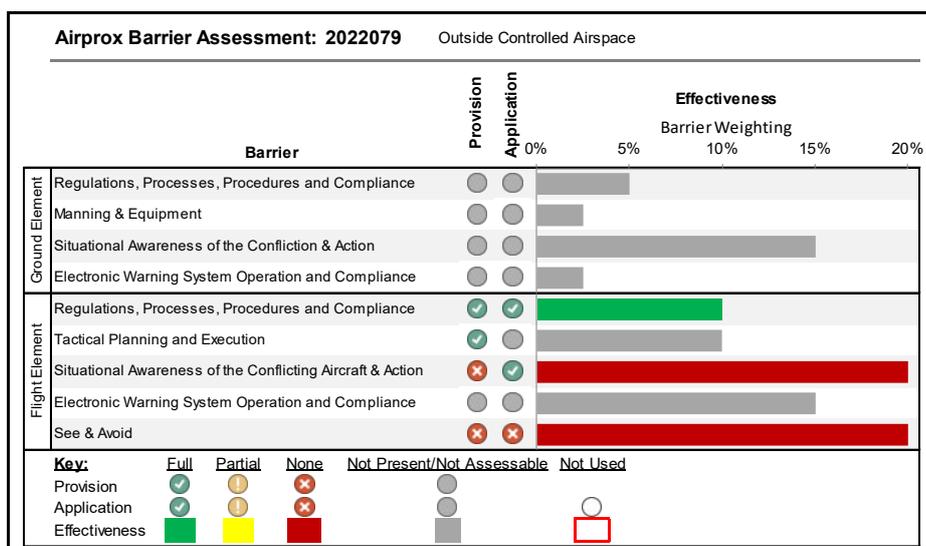
Safety Barrier Assessment⁴

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

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C150 pilot had had only generic information that there were gliders operating in the area, but not specific information on the Airprox glider.

See and Avoid were assessed as **ineffective** because the C150 pilot had not seen the glider in time to take any avoiding action.



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