

AIRPROX REPORT No 2019125

Date: 29 May 2019 Time: 1324Z Position: 5210N 00005W Location: 1.2nm SE Gransden Lodge

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21	DC3
Operator	Civ Glid	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Gransden Lodge	Cambridge
Altitude/FL	1300ft	1600ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White, Blue	Grey
Lighting	None	Strobe, Beacon
Conditions	VMC	VMC
Visibility	7km	>10km
Altitude/FL	1300ft	2500ft
Altimeter	QFE	NK
Heading	030°	120°
Speed	60kt	140kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	100ft V/20m H	500ft V/0.5nm H
Recorded	200ft V/<0.1nm H	



THE ASK21 PILOT reports that he had winch-launched from Gransden Lodge RW22 at 13:20 to 2200ft AMSL. At 1323 he was making a 360° turn to the left in a weak thermal at 1500ft AMSL (1200 ft AGL), 1.7km south-east of Gransden Lodge. A Douglas DC3 was sighted by P2 at about 3km range, bearing 300°, at the same altitude, flying wings level directly towards them on a heading of 120°. P2 warned him and he took avoiding action by making a descending turn to the right. The DC3 continued directly across the centre of Gransden Lodge, crossing perpendicular to the runway at approximately its midpoint, maintaining the same altitude, flying towards them. At the closest approach, the DC3 passed about 100ft above the still-descending ASK21 and displaced by perhaps 20m laterally. They continued turning to the right to observe the DC3 departing south-eastwards towards Duxford without deviating or taking any apparent avoiding action. The incident was witnessed from the ground by the gliding club launch marshal, who immediately obtained the DC3 registration using FlightRadar24 on his mobile phone. The igc file shows the launch and flight until a few seconds after the Airprox, but for unknown reasons ends at 1325, shortly after the Airprox and before the glider landed back at Gransden Lodge.

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

THE DC3 PILOT reports that he was on a direct track and descending into his destination airfield when he passed over or near, a glider airfield, he saw the glider taking what appeared to be either manoeuvring away or avoiding action, no avoiding action was required on his part. To the best of his recollection, he was at about 2500ft, based on the distance to his destination with a visual circuit altitude of 1000ft and using 1500ft to pass over or near the airfield. He continued to land at his destination.

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

THE CAMBRIDGE CONTROLLER has left the unit but was contacted by Cambridge who provided the following details. The controller reports he vaguely remembers speaking to a DC3 but was unable to give much detail. The DC3 called for a Basic Service as he transited inbound to Duxford from the north-

west. At the time Cambridge were working non-radar. It proved difficult to get information out of the DC3 crew. No mention of any proximity to other aircraft was reported by the crew to Cambridge. The aircraft left the frequency shortly after the reported time of the Airprox to begin his approach into Duxford. When informed about the Airprox by UKAB, the radar recordings were viewed and the DC3 was observed to fly through Gransden Lodge overhead at an altitude of 1500ft (mode C) and come into close proximity to a non-transponding slow-moving target that was thinly painting.

Factual Background

The weather at Cambridge was recorded as follows:

METAR EGSC 291320Z 21011KT 9999 FEW040 15/07 Q1018

Analysis and Investigation

UKAB Secretariat

The ASK21 and DC3 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as converging then the DC3 pilot was required to give way to the ASK21².

Comments

ASK21 Operating Authority

In addition to the severity of the actual Airprox, this incident is very concerning because the DC3 directly overflew a notified glider winch launch site well below the notified maximum winch altitude (3,300ft AMSL). If the overflight had taken place 4 or 5mins earlier then the Airprox would have occurred while the ASK21 was attached to the launch cable and in the process of being winch launched. In this case the glider pilot's ability to see and avoid the DC3 would have been greatly reduced. In recent months, Gransden Lodge has experienced a dramatic increase in the number of direct overflights by GA powered aircraft flying below the maximum winch launch altitude; these overflying aircraft are at risk of encountering a glider winch launch cable. This incident was our third confirmed overflight below maximum winch launch altitude in a period of 10 days. While only a few winch site overflights result in a reportable Airprox, all are potentially very dangerous.

BGA

It is particularly disappointing to see this happening despite the extensive efforts made by the Cambridge Gliding Club to engage with and educate local airspace users about the dangers of overflying an active winch launch site.

Summary

An Airprox was reported when an ASK21 and a DC3 flew into proximity at Gransden Lodge at 1325hrs on Wednesday the 29th of May 2019. Both pilots were operating under VFR in VMC, the ASK21 pilot listening out on the glider ground frequency and the DC3 pilot in receipt of a Basic Service from Cambridge.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, igc file and reports from the air traffic controller involved. 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.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

The Board began by discussing the actions of the ASK21 pilot. They noted that although he had no specific awareness of the DC3 beforehand (**CF4**), once sighted, he had managed to keep it in sight at all times as he manoeuvred away. Acknowledging that he was in the vicinity of the gliding site at about 1200ft, some members wondered whether he could have turned away more positively in order to provide a more prominent profile to the DC3 pilot in case he had not seen the glider. It seemed to them that in only achieving 100ft and 20m separation the glider pilot had left himself open to any changes in flightpath that the DC3 pilot might inadvertently have made. However, not being aware of the glider pilot's energy state or ability to manoeuvre more robustly, they agreed that, ultimately, he had done enough. The BGA members said that in this circumstance there was a balance between turning harder for conspicuity and increased separation, and turning more gently in order to keep the DC3 in sight in case the DC3 pilot manoeuvred at the last minute. Regardless, the Board agreed that the ASK21 pilot had seen the DC3 early enough to make a timely and effective manoeuvre to avoid (**CF5**).

The Board then turned to the actions of the DC3 pilot. They wondered firstly if the DC3 pilot had received a brief from his destination airfield regarding the likely activities at Gransden Lodge, and whether he was familiar with the UK requirement to avoid overflight of glider sites below winch-launch attitude. In the latter respect, the Board commented that he should have planned his route to avoid the glider site by a suitable margin rather than flying almost directly over the winch launch site at 1500ft (**CF2 & 3**). Given the DC3 pilot's greater assessment of achieved separation (0.5nm compared to <0.1nm as measured from overlaying the glider igc file on the radar replay of the DC3), some members commented that they thought that it was highly likely that he had seen a different glider to the one involved in this incident (**CF4**).

Turning to the Cambridge controller, the Board noted that he was operating Procedural-only, non-radar. As such, he would not have been aware of the non-transponding glider other than being generically aware of gliding activities that would likely be occurring at Gransden Lodge. Accepting that he would also not necessarily have been aware of the DC3 pilot's proximity to Gransden Lodge (**CF1**), some members wondered whether he had been able to provide a warning to the DC3 pilot about likely activity and the extent of Gransden Lodge's winch altitude if the DC3 was going to overfly the glider site.

Turning to the risk, the Board agreed that the ASK21 pilot had seen the DC3 sufficient early to manoeuvre in a timely and effective manner, and that he had remained visual with the DC3 at all times and thus able to alter his track further if required. Accordingly, the Board assessed that, although safety had been reduced, there had been no risk of collision; risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

2019125			
CF	Factor	Description	Amplification
Ground Elements			
• Situational Awareness and Action			
1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
Flight Elements			
• Tactical Planning and Execution			
2	Human Factors	• No Decision/Plan	Inadequate planning
3	Human Factors	• Aircraft Navigation	Flew through promulgated and active airspace/sporting site
• Situational Awareness of the Conflicting Aircraft and Action			
4	Contextual	• Situational Awareness and Sensory Events	Pilot had no, only generic, or late Situational Awareness
• See and Avoid			
5	Contextual	• Near Airborne Collision with Aircraft, Balloon, Dirigible or Other Piloted Air Vehicle	A conflict in the FIR

Degree of Risk: C.

Safety Barrier Assessment³

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

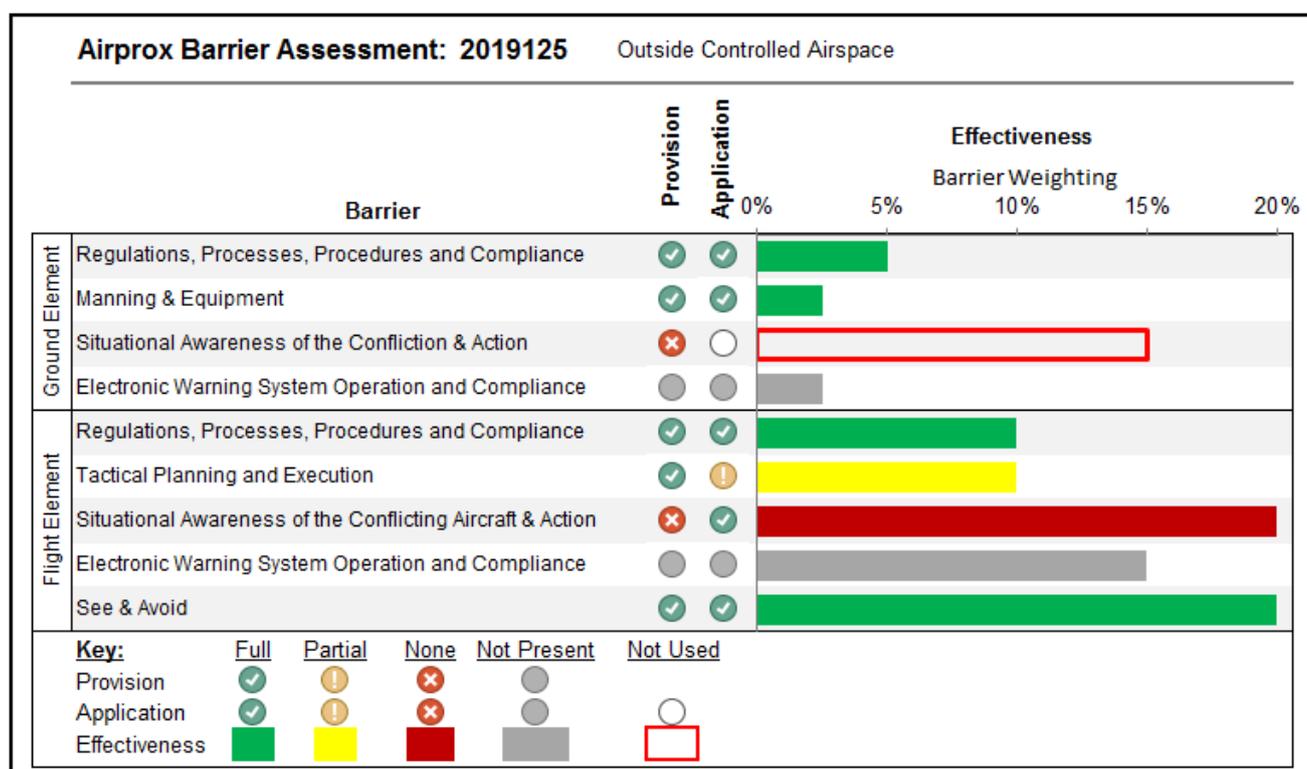
Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because the controller was not aware of the presence of the glider.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the DC3 pilot should have avoided the gliding site by a greater margin and not have flown over the gliding site.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because there was no situational awareness available to either pilot regarding the other aircraft.



³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).