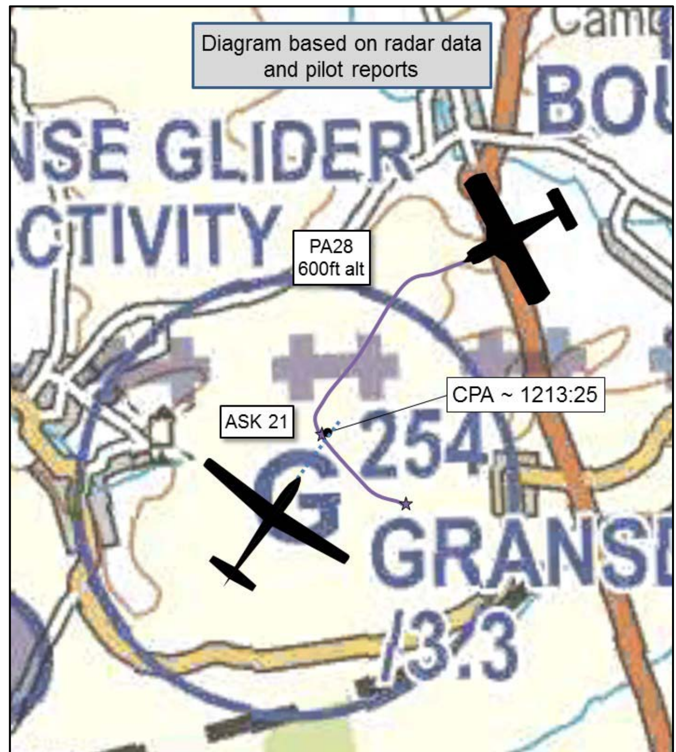
AIRPROX REPORT No 2016259

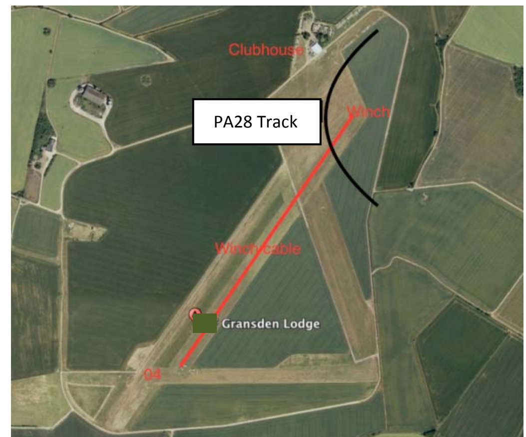
Date: 02 Nov 2016 Time: 1213Z Position: 5210N 00007W Location: Gransden Lodge Glider Site

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK 21	PA28
Operator	Civ Club	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Provider	Gransden Lodge	Little Gransden
Altitude/FL	NK	600ft
Transponder	Not fitted	On/C
Reported		
Colours	White	White, Blue
Lighting	Not reported	Strobe
Conditions	VMC	VMC
Visibility	10km	>10km
Altitude/FL	900	500
Altimeter	QFE	QFE
Heading	040°	220°
Speed	65kt	80kt
ACAS/TAS	FLARM	Not fitted
Alert	Unknown	N/A
Separation		
Reported	400-500ft V/50-100m H	400ft V/400m H
Recorded	NK	



THE ASK 21 PILOT reports that the event occurred during a winch launch on RW04. It appeared to him that a PA28 attempted to land on RW22 and, at the very last minute turned left (east) across the front of the winch. At the time it turned, the PA28 was just past the winch with the glider launch still in progress. The incident was witnessed from the ground by two witnesses, one a glider pilot and the other the Duty Instructor, who estimated that the PA28 was at 300-400ft agl and turned within feet of the live rope. The Duty Instructor watched the PA28 and believed it landed at Little Gransden A/F, 2-3nm west of Gransden Lodge airfield. The ASK 21 pilot was unaware of the event during his flight [because of his high nose-up attitude] and was only informed of the Airprox event after landing by the Duty Instructor. He included a plan view of the perceived PA28 track.



He perceived the severity of the incident as 'High'.

THE PA28 PILOT reports that he was en-route to Little Gransden and, while identifying his landing site, he flew close to Gransden Lodge. He was visual with the glider and took 'appropriate' action.

He assessed the risk of collision as 'None'.

A WITNESS reports that he was in the gliding clubhouse and saw the event. From his perspective the aircraft flew around the front of the winch (as the ASK 21 pilot's picture suggests) rather than behind. He believes the aircraft was probably lined up with the centerline of RW22 when he realised his error. He reported that the PA28 pilot turned left around the front of the winch as he made his go-around. Unfortunately he cannot report the position of the glider or cable at the time because the visual angle cutoff from the clubhouse roof and window frame limited his view vertically. However, the fact that the PA28 was framed centrally in the window when looking out also supports his perception that the PA28 went around the front of the winch at about 300-400 ft.

Factual Background

The weather at Cambridge was recorded as follows:

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METAR EGSC 021250Z 33009KT CAVOK 09/02 Q1024
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Analysis and Investigation

UKAB Secretariat

The ASK 21 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]. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation[2].

Comments

BGA

Although this incident appears to be the result of misidentification rather than deliberate flight planning, it highlights the dangers present at gliding sites, especially when winch launching.

Summary

An Airprox was reported when an ASK 21 and a PA28 flew into proximity at 1213 on Wednesday 2nd November 2016. Both pilots were operating under VFR in VMC, neither pilot in receipt of a Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board began their discussions by looking at the hazards associated with flying in the proximity of winch launching gliders. They noted that the steep climb angle of the ASK21 would restrict the view of the glider pilot until he had released the cable and so it was not surprising that the glider pilot had not seen the PA28 which was descending head-on below the glider. Some members wondered whether the glider launch team's lookout had been sufficiently robust before launching the glider, but the glider representative commented that the PA28 would likely have been relatively low at the start of the launch and may have been obscured to the launch team. Notwithstanding, this incident highlighted the importance of conducting robust pre-launch lookout checks prior to taking up the winch-cable slack; aircraft unexpectedly entering the launch zone could have catastrophic consequences that had apparently only just been avoided in the circumstances described with aircraft (and cable) separation rapidly decreasing as the glider and PA28 flew towards each other.

The Board then turned to the actions of the PA28 pilot. They noted from his minimal report that he thought that he had simply flown close to the gliding site when it appeared from the glider site's

[1] SERA.3205 Proximity.
[2] SERA.3225 Operation on and in the Vicinity of an Aerodrome.

perspective that he had made an approach to their airfield. The Board could not reconcile the PA28's altitude of 600ft (300-400ft agl) with what would be expected had he been en route to Little Gransden (about 2nm SW) and trying to identify his landing site. It seemed to the Board that he had either identified the wrong airfield and was making an approach to the Glider Site or was not sufficiently aware of Gransden Lodge and had unexpectedly come across it during his search for Little Gransden and subsequent positioning to land. Whichever, members unanimously agreed that by turning left across the launching ASK21's track he had probably passed perilously close to the winch cable and had been extremely lucky not to have made contact with it. It was not clear to the Board whether turning left had constituted 'appropriate' action, but without video or pictures of the incident, members were reluctant to make a judgement based on perceptions from ground observers.

The Board then considered the cause and risk of the incident and members quickly agreed that the PA28 pilot had flown overhead a promulgated and active glider site and into conflict with the winch-launching ASK21. Turning to the risk, members discussed at length whether the PA28 pilot had likely crossed in front of the winch or not, the implications of the near collision with the cable, and the fact that the glider itself, although not physically that close to the PA28, was still attached to the cable and therefore also at risk. Some members opined that the risk was best described as safety not assured (Category B), but the majority view was that this incident had seen the PA28 fly very close to the launch cable and that there had therefore been a serious risk of collision; accordingly, the Board assessed the risk as Category A.

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

Cause: The PA28 pilot flew over an active and promulgated gliding site and into conflict with the winch launching ASK 21.

Degree of Risk: A.

Safety Barrier Assessment[3]:

The Board decided that the following key safety barriers were contributory in this Airprox:

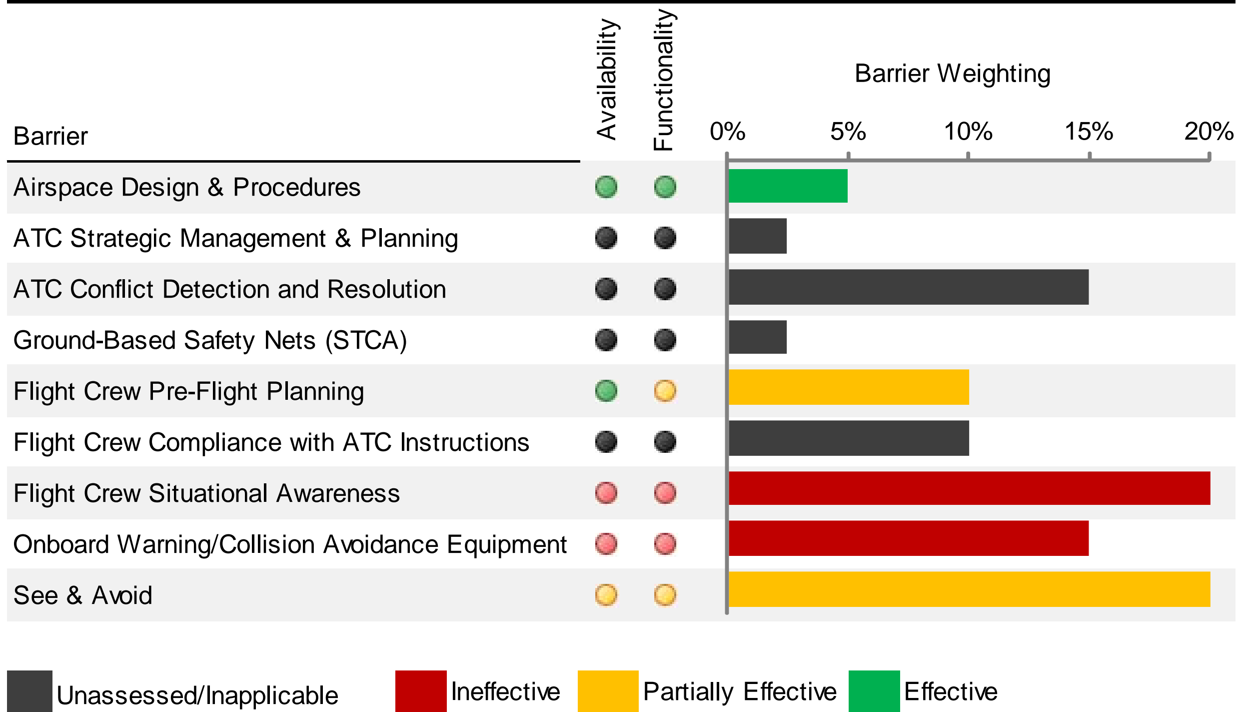
Flight Crew Pre-Flight Planning was considered to be **partially effective** because although the PA28 pilot had presumably not intended to infringe the glider site he had either not recognised the different runway profiles and had made an approach to the wrong airfield, or had not planned his route sufficiently to safely avoid the glider site by a sufficient margin.

Flight Crew Situational Awareness was considered to be **ineffective** because there was no information available to either pilot on each other's aircraft, and the PA28 pilot did not appear to be sufficiently aware of Gransden Lodge glider site.

Onboard Warning/ Collision Avoidance Equipment was considered to be **ineffective** because although the ASK21 had FLARM fitted, this could not detect the PA28, and the PA28 did not have a system fitted.

See and Avoid was considered to be only **partially effective** because the ASK21 pilot did not see the PA28 and, although the PA28 pilot reported that he saw the ASK21, his avoiding turn would have likely taken him across the winch launching glider's cable.

[3] Modern safety management processes employ the concept of safety barriers that prevent contributory factors or human errors from developing into accidents. Based on work by EASA, CAA, MAA and UKAB, the table depicts the barriers associated with preventing mid-air-collisions. The length of each bar represents the barrier's weighting or importance (out of a total of 100%) for the type of airspace in which the Airprox occurred (i.e. Controlled Airspace or Uncontrolled Airspace). The colour of each bar represents the Board's assessment of the effectiveness of the associated barrier in this incident (either Fully Effective, Partially Effective, Ineffective, or Unassessable/Inapplicable). The chart thus illustrates which barriers were effective and how important they were in contributing to collision avoidance in this incident. The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.


Airprox Barrier Assessment: 2016259
Outside Controlled Airspace
Barrier
Availability
Functionality
Barrier Weighting
0%
5%
10%
15%
20%
Airspace Design & Procedures
ATC Strategic Management & Planning
ATC Conflict Detection and Resolution
Ground-Based Safety Nets (STCA)
Flight Crew Pre-Flight Planning
Flight Crew Compliance with ATC Instructions
Flight Crew Situational Awareness
Onboard Warning/Collision Avoidance Equipment
See & Avoid
Unassessed/Inapplicable
Ineffective
Partially Effective
Effective