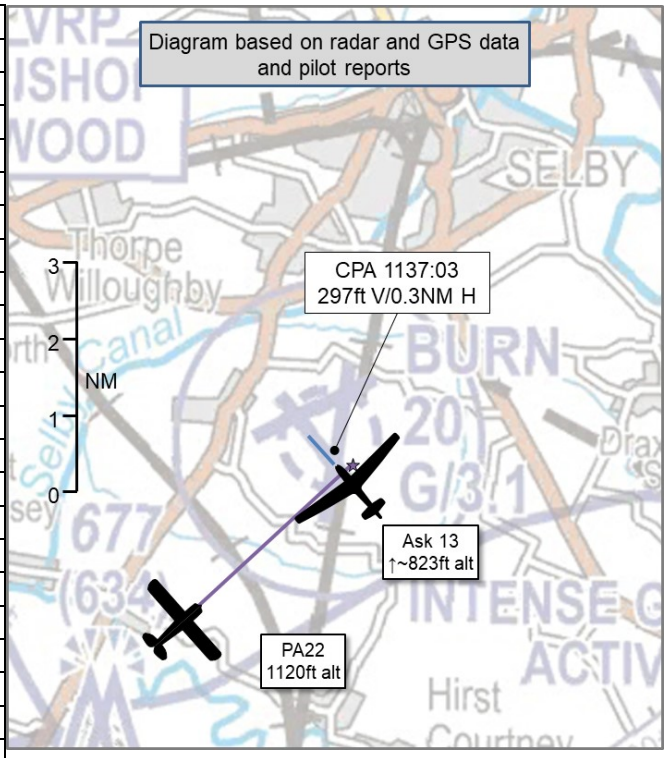
AIRPROX REPORT No 2020153

Date: 15 Oct 2020 Time: 1137Z Position: 5344N 00105W Location: Burn gliding site

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK13	PA22
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Listening Out
Provider	N/A	Sherburn
Altitude/FL	823ft[1]	FL007 (1120ft)
Transponder	None	A, C
Reported		
Colours	Blue, White	Red
Lighting	None	Nav
Conditions	VMC	VMC
Visibility	>10km	Good
Altitude/FL	900ft	1200ft
Altimeter	NK	NK
Heading	330°	080°
Speed	55kt	100kt
ACAS/TAS	FLARM	PCAS
Alert	None	None
Separation		
Reported	~200ft V/~200m H	Not seen
Recorded	~297ft V/~0.3NM H	



THE BURN DUTY INSTRUCTOR reports that a winch launch with an ASK13 glider had commenced on RW33, at this point some of the glider pilots shouted for the launch to be aborted but it was already in full climb, they had spotted a powered aircraft crossing the airfield from a south westerly direction at about 1000ft, the powered aircraft was a red high wing single engine aircraft, no registration could be seen from the ground and it wasn't seen on the Flight24 mobile application, the powered aircraft missed the winch launch by a few hundred feet horizontally and should not have been in the Burn Gliding Club's overhead because winch launching is one of the normal launch methods.

THE ASK13 PILOT reports that they had two launches in close succession around mid-day. They cannot remember whether the Airprox occurred during the first or second launch. The runway in use on the day was 30. During the launches they concentrated on the speed and attitude of the aircraft. At the top of the launch cable release was normal and they turned right and circled a couple of times before starting the downwind leg and landing on both occasions. They did not see another aircraft in close proximity during the launch as it may have been below or behind. On landing they were advised of the incident.

THE PA22 PILOT reports that they were flying to Sherburn. They were monitoring Sherburn's frequency and, when about 8NM south, heard a pilot abandon their departure due to heavy rain. The PA22 pilot could see the rain to their northwest, over Sherburn, and decided to divert to the northeast, via Selby. They were not aware of being in Burn's area and saw no other aircraft. The airfield they landed at had a telephone call from Burn concerning their flight. The PA22 pilot did not have their phone with them and tried to contact Burn later that afternoon and the following morning, both without success.

Factual Background

[1] Height derived from the GPS log file provided by the ASK13 pilot.

The weather at Linton-on-Ouse was recorded as follows:

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METAR EGXU 151120Z 03008KT 6000 -RA FEW013 BKN036 10/09 Q1028 RMK WHT
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Analysis and Investigation

UKAB Secretariat

The ASK13 and PA22 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[2] 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.[3]

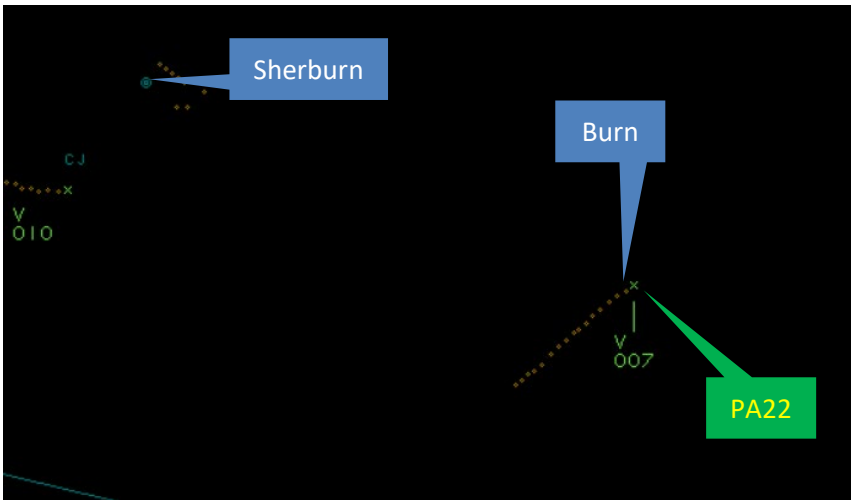


Figure 1: Radar replay – 1137:03

Comments

BGA

A diversion requires particular attention to navigation; the gliding site is clearly marked as a winching site up to 3100ft AMSL, and there is also an 'Intense Gliding Activity' annotation on the chart. Burn Gliding club have recorded 116 overflights since 2016; 17 of these occurred in 2020. It is only a matter of time before an incident like this results in a mid-air collision.

Summary

An Airprox was reported when an ASK13 and a PA22 flew into proximity at Burn gliding site at about 1137Z on Thursday 15th October 2020. Both pilots were operating under VFR in VMC, the ASK13 pilot not in receipt of a service and the PA22 pilot listening out on Sherburn's frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs/video recordings/GPS file. 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.

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments.

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

The Board began by looking at the actions of the ASK13 pilot. They had been on the winch cable phase of the launch, the PA22 had passed behind them and therefore they had no opportunity to see the aircraft (**CF7**). It was the other members of the gliding club that had seen the PA22 and, although some of them called for the launch to be aborted, the Duty Instructor realised that the ASK13 was at a critical stage of launch and aborting was not a viable option. The BGA Board member said that since Burn started recording overflights, a total of 116 aircraft had been noted as having transited over without contacting the site. Furthermore, they observed that this number began to increase when the local airspace was altered which resulted in a funnelling of traffic through the area.

The Board then turned to the actions of the PA22 pilot. They had planned to land at Sherburn but, because of the weather, decided to divert. The radar replay showed the PA22 turning towards the town of Selby when they were approximately 5NM from Sherburn, this change in track put them on a direct course over Burn gliding site. The GA Board member said that the workload when initiating a diversion can increase significantly and is best mitigated with pre-flight planning, where it is easier to identify hazards which may affect a flight if there is a need to deviate from the planned route (**CF2**). Regardless, when diverting careful examination of onboard planning equipment (either paper maps or electronic devices) is very important, especially when flying in unfamiliar areas. The GA member said that there are several electronic aids which can be very helpful in these situations; dependent on specification, they have the ability to warn the pilot when they are approaching an area that should be avoided, e.g. glider sites, NOTAMs etc. In this case the radar replay clearly shows the PA22 routing towards Sherburn and then changing course to head towards the SWE corner of Selby, which was the stated navigation feature used for a reference point on their way to the diversion airfield. Unfortunately this change in course resulted in them flying overhead Burn gliding site; The maximum winch launch altitude of Burn gliding site is published on the chart as being at 3100ft altitude, the reported and recorded altimeter readings confirm that the PA28 was well below this, indicating that they flew through the area of a notified and active glider winch launch site (**CF1&3**).

The Board finally looked at the risk. Both aircraft had an electronic warning system fitted but neither system was compatible with the other (**CF5**). Neither pilot saw the other aircraft or had any information of their presence (**CF4&7**) and therefore the safety of the aircraft was not assured and a risk of collision existed, a Risk Category B (**CF6**).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2020153		
CF	**Factor**	**Description**	**Amplification**
	Flight Elements		
	• Regulations, Processes, Procedures and Compliance		
1	Human Factors	• Flight Operations Documentation and Publications	Regulations and/or procedures not fully complied with
	• Tactical Planning and Execution		
2	Human Factors	• Flight Planning and Preparation	
3	Human Factors	• Action Performed Incorrectly	Incorrect or ineffective execution
	• Situational Awareness of the Conflicting Aircraft and Action		
4	Contextual	• Situational Awareness and Sensory Events	The pilot had generic, late or no Situational Awareness
5	Technical	• ACAS/TCAS System Failure	Incompatible CWS equipment
	• See and Avoid		
6	Contextual	• Near Airborne Collision with Aircraft, Balloon, Dirigible or Other Piloted Air Vehicle	Piloted air vehicle
7	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: B.

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:

Flight Elements:

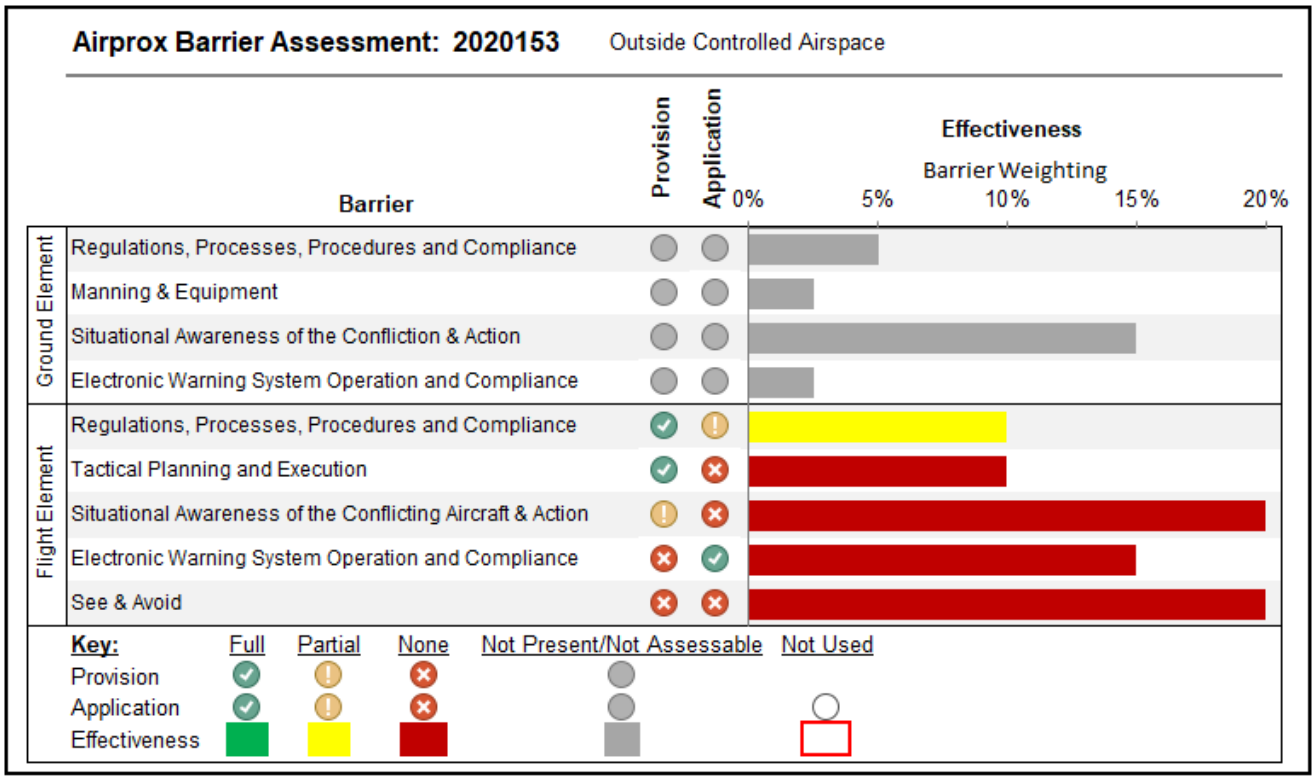
Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the PA22 pilot flew through an active and notified gliding site.

Tactical Planning and Execution was assessed as **ineffective** because the PA22 pilot's diversion did not allow for Burn gliding site on their route.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the ASK13 pilot had no information about the PA22. The PA22 pilot had generic information about the glider site but did not act on the available information.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because both aircraft were fitted with an electronic warning system, but they were incompatible with each other.

See and Avoid were assessed as **ineffective** because neither pilot saw 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.