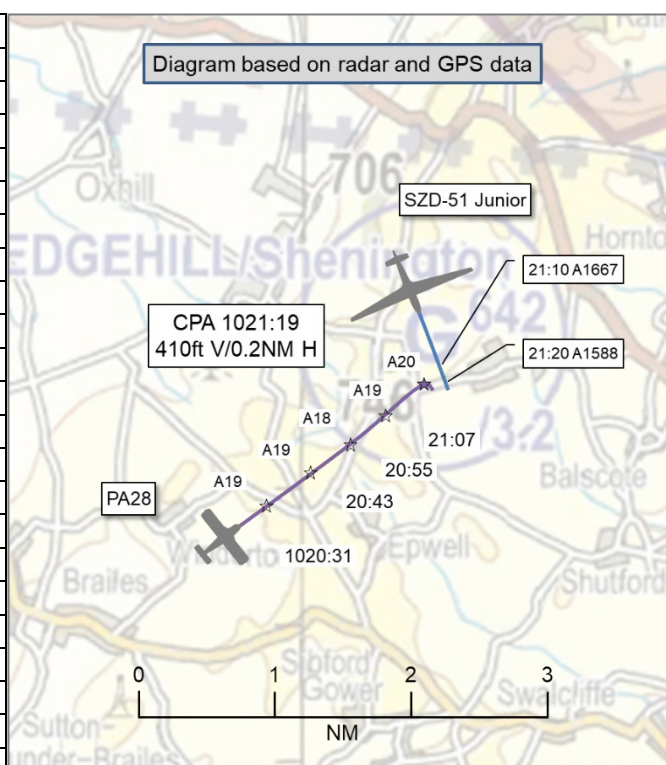


AIRPROX REPORT No 2021136

Date: 03 Aug 2021 Time: 1021Z Position: 5205N 00128W Location: Edgehill airfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	SZD-51 Junior	PA28
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	CGFF ¹	Cranfield App
Altitude/FL	1590ft	2000ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White, green	White
Lighting	Not fitted	'Standard'
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1050ft	2900ft
Altimeter	QFE (NK hPa)	QNH (NK hPa)
Heading	170°	065°
Speed	60kt	110kt
ACAS/TAS	Not fitted	TAS
Alert	N/A	None
Separation at CPA		
Reported	~100ft V/<200m H	200-300ft V ~200m H
Recorded	410ft V/0.2NM H	



THE SZD-51 JUNIOR PILOT reports that they were at the top of a winch launch, looked out to the right and saw a light-aircraft coming towards them. They then saw it climb relatively steeply and thought the light-aircraft pilot had seen the glider. They released the winch cable, and dived to achieve separation.

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

THE PA28 INSTRUCTOR reports on a training flight navigation lesson. It was the second navigation flight for the student. The plan was to avoid Edgehill but the student forgot to do the avoidance and the instructor was distracted by traffic in the area. By the time the instructor realised that they had flown into the south edge of the Edgehill zone [sic] they saw a glider ahead. The instructor took control and made an avoidance turn to the right to move away from Edgehill. The instructor noted that they were explaining some of the cockpit checks to the student and so got distracted from the picture outside. The lesson learned was to stay ahead of the aircraft, compare the picture between the map and ground, think ahead and do the avoidance turn well ahead, not to get distracted and fixate on one thing for more than a few seconds.

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

THE CRANFIELD CONTROLLER reports that they were not aware of an Airprox event and it was not reported to the Cranfield ATSU at the time.

¹ Common Glider Field Frequency.

Factual Background

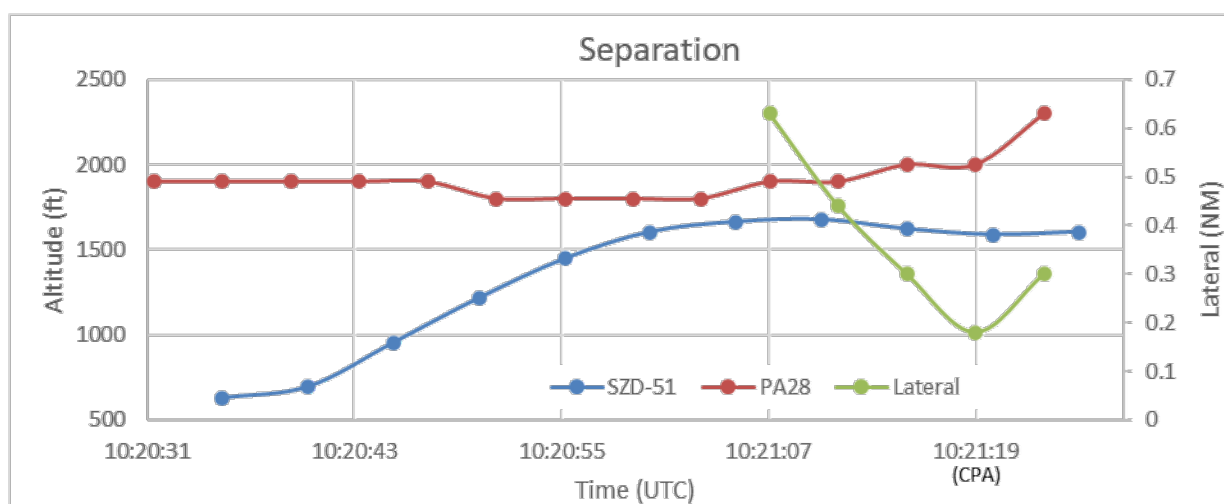
The weather at Brize Norton and Birmingham was recorded as follows:

METAR EGVN 031020Z 19003KT 9999 SCT024 18/11 Q1013 BECMG SCT025 RMK BLACKWHT BECMG BLU=
METAR EGBB 031020Z VRB03KT 9999 FEW014TCU 17/13 Q1013=

Analysis and Investigation

UKAB Secretariat

The SZD-51 Junior and PA28 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



Comments

BGA

It is concerning to read of yet another flight into proximity with winch launching gliders, particularly during an instructional flight focussed on navigation. However we commend the PA28 instructor for his open and honest reporting, and hope that the lessons learned will be communicated widely amongst GA instructors.

Summary

An Airprox was reported when an SZD-51 Junior and a PA28 flew into proximity at Edgehill gliding site at 1021Z on Tuesday 3rd August 2021. Both pilots were operating under VFR in VMC, the SZD-51 Junior pilot listening out on the Common Glider Field Frequency and the PA28 pilot in receipt of a Basic Service from Cranfield.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate operating authorities. 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.

² (UK) SERA.3205 Proximity.

³ (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

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.

The Board members first discussed the PA28 instructor's report and agreed that, although the incident was concerning, it was pleasing to see the PA28 instructor's full and honest report, for which they were commended. Members agreed that the incident had hinged on the navigation route plan and that its incorrect execution (CF2) had resulted in the PA28 being flown through the promulgated and active gliding site (CF3) and into close proximity with a winch launching glider (CF6). Members noted that the PA28 pilot had been in receipt of a Basic Service from Cranfield but that this had served little purpose due to lack of a radar at, and the distance of the PA28 from, Cranfield (CF4). The Cranfield ATCO could not have provided any assistance to the PA28 pilot (CF1) and the Board felt that the PA28 instructor would have been much better served by obtaining a Basic or Traffic Service from a closer, surveillance equipped, airfield. Unfortunately, the PA28 pilot's navigation plan appeared to be 'fail unsafe' in that the instructor had been distracted (CF7) resulting in a lack of mentoring of the student (CF8), a late sighting of the glider (CF11, CF12) and avoiding action that had been too late (CF5) to prevent the PA28 and glider from flying in to close proximity. The glider pilot had had no situational awareness on the approaching PA28 and the PA28 pilots had had, at best, generic situational awareness that gliders were likely to be operating from a gliding site that was marked on their charts (CF9). The glider had not been fitted with EC (CF10) so the only remaining barrier to MAC was see-and-avoid. Members felt that the glider pilot had seen the PA28 first, albeit at a late stage (CF12) and had been concerned by its proximity (CF13) such that, on releasing the cable, they dived to achieve separation. Turning to risk, some members felt that the PA28 and glider pilots had averted collision by taking effective avoiding action, risk C, but the majority felt that the proximity of the PA28 to the glider at the top of its winch launch had been such that safety had been much reduced (CF14).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2021136			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Situational Awareness and Action				
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
Flight Elements				
• Tactical Planning and Execution				
2	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
3	Human Factors	• Aircraft Navigation	An event involving navigation of the aircraft.	Flew through promulgated and active airspace, e.g. Glider Site
4	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
5	Human Factors	• Late Decision/Plan	Events involving flight crew making a decision too late to meet the needs of the situation	
6	Human Factors	• Monitoring of Environment	Events involving flight crew not to appropriately monitoring the environment	Did not avoid/conform with the pattern of traffic already formed
• Situational Awareness of the Conflicting Aircraft and Action				
7	Human Factors	• Interpretation of Automation or Flight Deck Information	Interpretation of Automation or Flight Deck Information by the flight crew.	Pilot engaged in other tasks
8	Human Factors	• Mentoring	Events involving the mentoring of an individual	

9	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late or only generic, Situational Awareness
• Electronic Warning System Operation and Compliance				
10	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
• See and Avoid				
11	Human Factors	• Distraction - Job Related	Events where flight crew are distracted for job related reasons	
12	Human Factors	• Identification/Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
13	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft
• Outcome Events				
14	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: B.

Recommendation: Nil.

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:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because Cranfield are not surveillance equipped and were not aware of the PA28 flight path.

Flight Elements:

Tactical Planning and Execution was assessed as **ineffective** because the PA28 instructor did not avoid the Edgehill gliding site, as planned.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because although the PA28 instructor was aware of the location of the Edgehill gliding site, they were distracted 'by traffic in the area'.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the glider was not fitted with EC transmit or receive and could not alert or be alerted by the PA28 TAS.

⁴ 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: 2021136		Outside Controlled Airspace						
Barrier		Provision	Application	Effectiveness Barrier Weighting				
				0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓					
	Manning & Equipment	✓	✓					
	Situational Awareness of the Confliction & Action	✗	○					
	Electronic Warning System Operation and Compliance	●	●					
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓					
	Tactical Planning and Execution	✓	✗					
	Situational Awareness of the Conflicting Aircraft & Action	⚠	⚠					
	Electronic Warning System Operation and Compliance	✗	✓					
	See & Avoid	✓	✓					
Key:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✓	⚠	✗	●				
Application	✓	⚠	✗	●		○		
Effectiveness								