AIRPROX REPORT No 2024079

Date: 06 May 2024 Time: ~1509Z Position: 5249N 00212W Location: IVO Seighford Airfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Grob 103	R44
Operator	Civ Gld	Civ Helo
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Listening Out
Provider	None	Shawbury
Altitude/FL	900ft	825ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Yellow and black
Lighting	None	Nav, strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	700ft AGL	1000ft
Altimeter	NK	NR
Heading	060°	165°
Speed	60kt	70kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	200ft V/100m H	500ft V/>1.0NM H
Recorded	~50ft V/~0.1NM H	

THE GROB 103 PILOT reports that they had just completed a winch launch when the helicopter flew down their port side, roughly down the airfield boundary. The helicopter had been tracking about 240° and remained at about 500ft AGL on that track until out of sight. The Grob 103 pilot opined that if the helicopter had arrived a minute earlier and if it had tracked about a 100m further south, it would likely have made contact with the launching cable. Seighford is a busy airfield. It can have more than 200 movements in a day and many of the gliders will remain in the vicinity of the airfield.

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

THE R44 PILOT reports that the sun had been shining and they had decided to enjoy the fine weather and had taken a short flight from [departure airfield] to a private site in Cheshire [destination] for lunch with 2 friends. [They report that they had subsequently] received an Airprox report and that this is the first time they had ever received anything like it and had been a little shocked, so had completed it as fully as they could recollect. During the return flight from […] they had seen what appeared to have been a glider tracking right-to-left approximately 2NM ahead in an area which is approximately 6NM from a glider nominated airfield. The aircraft had been in excess of 500ft above and appeared to be climbing. The R44 pilot reports that they had continued their track having considered the [other aircraft] not to have been a problem. They continued to monitor the glider and noted that it had started to change direction, appearing as if it had been starting an orbit to the right. With it being a glider, the R44 pilot had presumed it had been orbiting to gain height, grabbing the thermals as it had been a hot day. However, although it had appeared to be climbing, the R44 pilot had altered their track and turned to the right to continue the separation as a precautionary change. [They recall that] they had been flying at a relatively slow speed of approximately 70kt and had been visual with the glider which had been above them. The R44 pilot had continued their track to the right and then regained course back towards [departure airfield]. They note that they had had their SkyDemon loaded onto an iPad with the planned route, however, with the intense sun, when they returned to the helicopter [after lunch] the iPad had

shut down due to overheating. They do however have SkyDemon on their mobile phone as a backup and their front seat passenger had held the phone for the pilot to reference. They had known that their planned track was approximately 160° and had been conscious to avoid the Shawbury MATZ and Cosford Zone. They had been flying VFR with good visibility and had been aware of both microlight and glider sites on the route and aimed to maintain around 1000ft on the QNH.

The pilot assessed the risk of collision as 'None'.

SHAWBURY AIR TRAFFIC CONTROL reports that as this event had been a bank holiday, Shawbury ATC had not been operating that day, therefore neither aircraft had been in contact with them. They note that they had had a quick look at their recordings (as they run all the time) and had seen an aircraft operating around Seighford at the reported time, however, there had been no indication of a second aircraft on those replays.

Factual Background

The weather at Shawbury was recorded as follows:

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METAR EGOS 061450Z AUTO 33011KT 9999 OVC100/// 16/11 Q1010=
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Analysis and Investigation

UKAB Secretariat

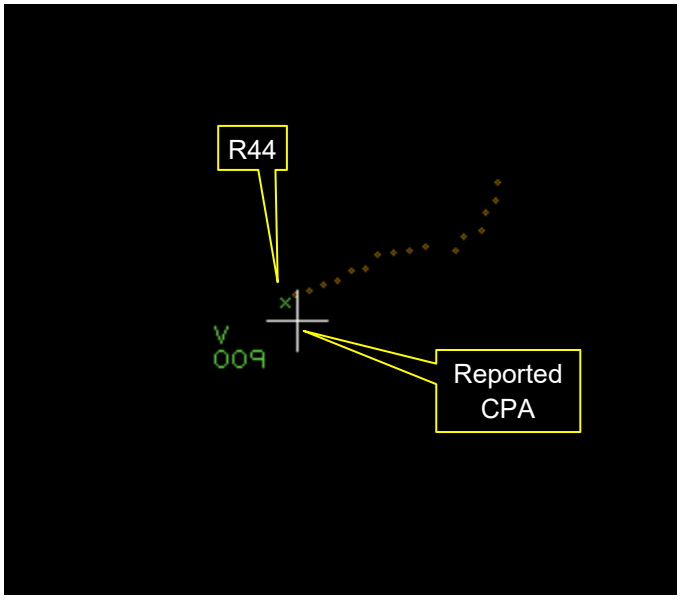


Figure 1: Reported CPA ~1508:50.

The Grob 103 had not been carrying a transponder and appeared on radar only momentarily as a primary contact ahead of the reported CPA. The diagram on page 1 was constructed using radar data for the R44 and GPS-derived data for the Grob 103.

The Grob 103 and R44 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 R44 pilot was required to give way to the

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

Grob103.[3] 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.[4]

Comments

BGA

UK glider launch sites (including Seighford) are listed in UK AIP ENR 5.5 and labelled on the CAA 1:500,000 and 1:250,000 charts with a "G" symbol, as shown in Figure 2. A greater density of gliders may be expected nearby at any time during daylight hours, and at any altitude up to cloudbase. Where winch launching is used, the maximum winch launch altitude is listed in the AIP and marked on the chart; this is 2400ft AMSL at Seighford, as indicated by the black arrow. Overflying a winch site below this altitude during daylight hours risks encountering high tensile strength cable (as pictured) connecting a launching glider to the winch on the ground.

Despite having access to a widely-used moving map navigation application (running on their mobile phone), the R44 pilot does not report seeing a warning as they flew through the circuit of an active gliding site below its notified maximum winch launch altitude. It would be useful to understand why.

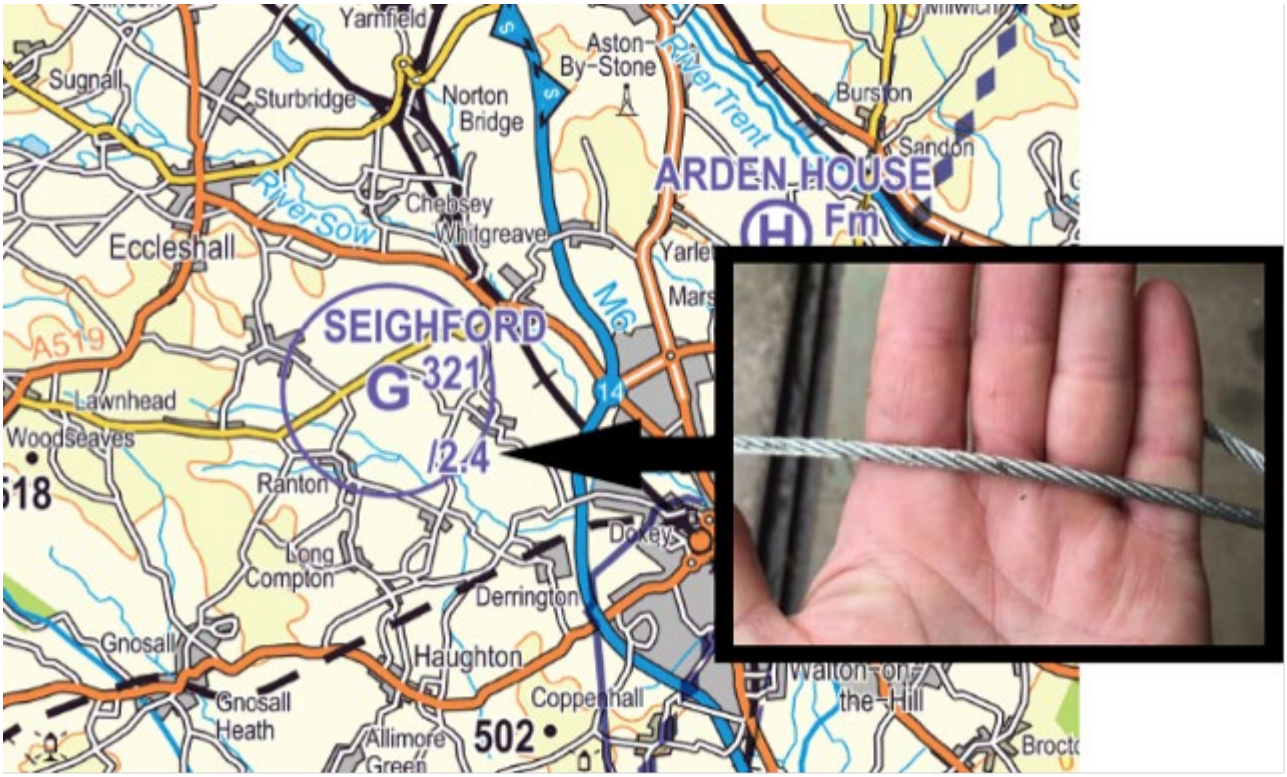


Figure 2: UK 1:250,000 Chart

Summary

An Airprox was reported when a Grob 103 and an R44 flew into proximity at Seighford airfield at 1509Z on Monday 6th May 2024. Both pilots were operating under VFR in VMC, the Grob 103 pilot not in receipt of an Air Traffic Service and the R44 pilot Listening Out on the Shawbury Approach frequency.

[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.
[4] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and GPS data. 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 considered the actions of the Grob pilot. Members noted that their operation had been from an active glider site and had been initiated through a winch-launch. Members commended the carriage and use of electronic conspicuity equipment, although in this case the glider pilot's EC equipment had not been compatible with the equipment carried by the R44 and had therefore not been able to provide the Grob pilot with any situational awareness of the approaching R44 (**CF4**) nor could it have provided an alert as the separation between the 2 aircraft had reduced (**CF5**).

Turning to the actions of the R44 pilot, members noted that they reported having identified the Grob and visually tracked it as it had manoeuvred, making a heading adjustment to the right to maintain separation. The Board considered the pilot having recalled the event to have been 6NM from the nearest marked glider site and wondered whether the glider seen had been the subject Grob. The Board also remarked that the route taken by the R44 pilot had put them slightly to the north of the active glider site but potentially within the winch launch parameters marked on the chart (**CF2**, **CF3**) due to their choice of transit altitude. Members noted that the pilot had elected to listen out on the Shawbury LARS frequency, which had not been operational at the time, and wondered whether an active service from a relevant provider might have been a more appropriate addition to aid their situational awareness, or perhaps have called Seighford on their transit past the airfield (**CF1**).

The Board opined that a lack of common radio frequency in use and incompatible electronic conspicuity equipment had effectively deprived both pilots of any situational awareness of the other (**CF4**) and ultimately neither had visually acquired the other ahead of the CPA (**CF6**).

Finally, the Board discussed the risk; in doing so they considered the reports from the controller and both pilots, as well as the recorded separation between the 2 aircraft. They agreed that safety margins had been much reduced below the norm and that a risk of collision had been present (**CF7**). As such, the Board assigned a Risk Category B to this Airprox.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024079			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
2	Human Factors	• Aircraft Navigation	An event involving navigation of the aircraft.	Flew through promulgated and active airspace, e.g. Glider Site
3	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
	• Situational Awareness of the Conflicting Aircraft and Action			
4	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
	• Electronic Warning System Operation and Compliance			
5	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			
6	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

	• Outcome Events			
7	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.

Safety Barrier Assessment[5]

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

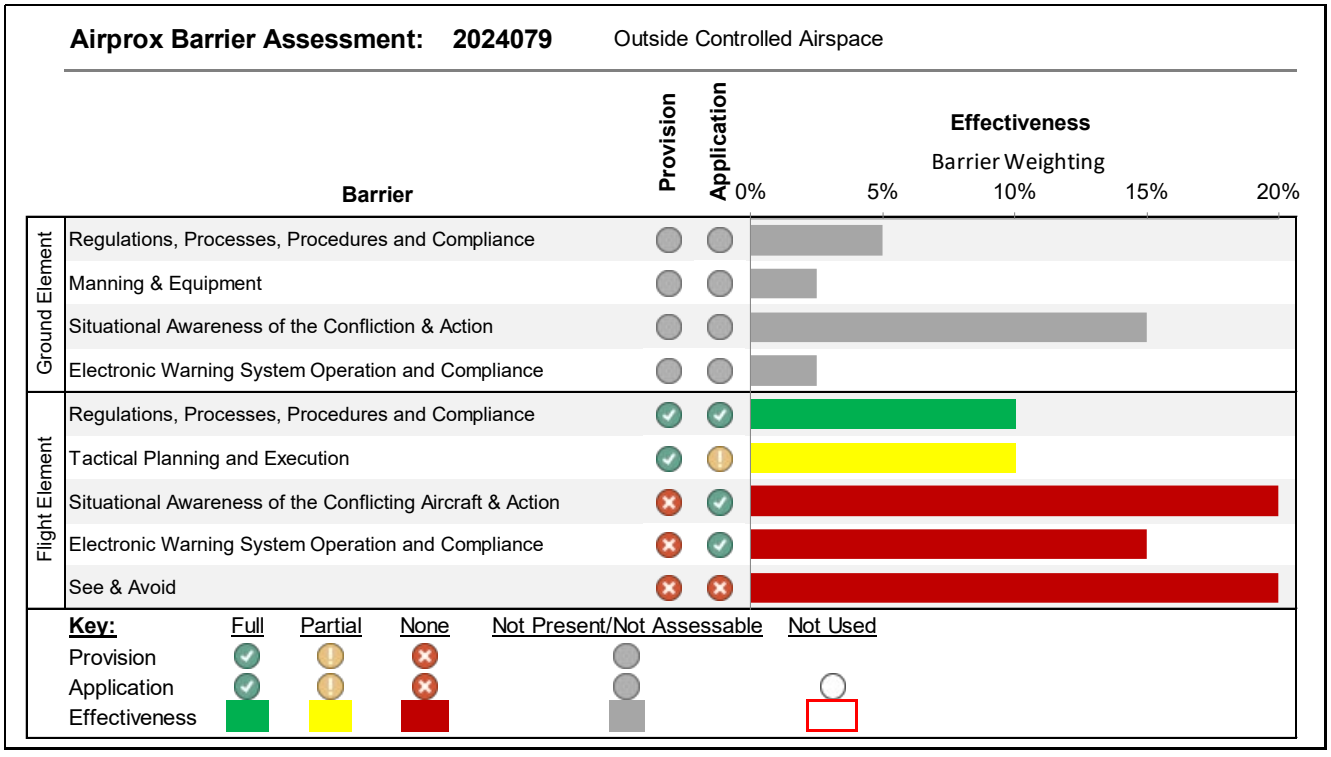
Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the R44 pilot's pre-flight briefing had led to them flying through a promulgated and active glider site at an altitude that increased the likelihood of an encounter with a glider.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither the Grob 103 pilot nor the R44 pilot had any situational awareness of the presence of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the Grob 103 had not been able to detect any emissions from the R44.

See and Avoid were assessed as **ineffective** because neither pilot had effectively gained visual contact with the other aircraft before CPA.



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