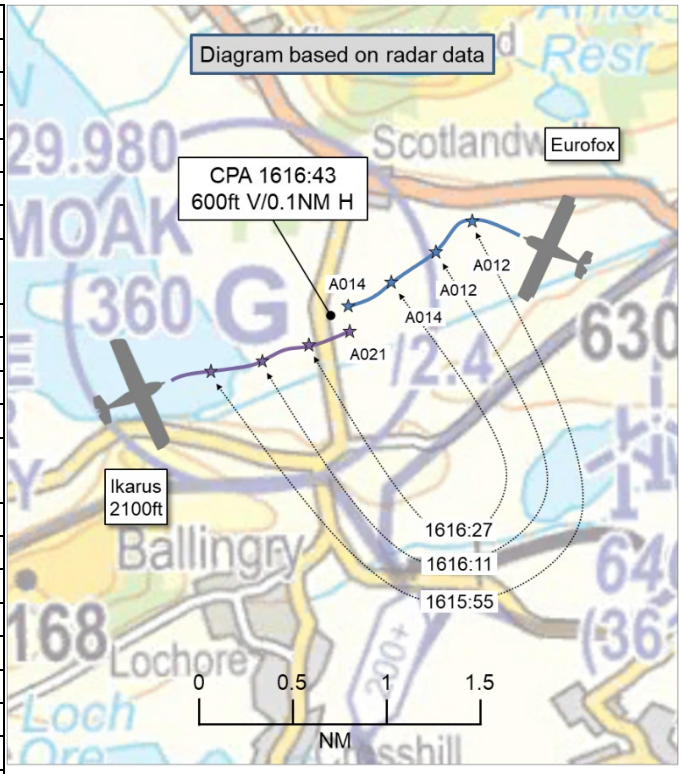
AIRPROX REPORT No 2023178

Date: 10 Aug 2023 Time: 1617Z Position: 5611N 00319W Location: 0.5NM E Portmoak

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Eurofox	Ikarus
Operator	Civ FW	Civ FW
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Listening Out
Provider	Portmoak Traffic	Edinburgh Radar, Balado Traffic[1]
Altitude/FL	1400ft	2100ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Black, yellow	White, blue
Lighting	Nav, strobes, landing	Tail strobe, landing
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1100ft	2300ft
Altimeter	QFE (1002hPa)	QNH (1014hPa)
Heading	240°	090°
Speed	60kt	70kt
ACAS/TAS	FLARM	PilotAware
Alert	None	None
Separation at CPA		
Reported	300ft V/300m H	NK V/NK H
Recorded	600ft V/0.1NM H	



THE EUROFOX PILOT reports that they were towing an ASK21 two-seater glider with an easterly departure from Portmoak. The anticipated release height was 2500ft QFE. A light, single-engine type, or microlight, was spotted ahead, routing right-to-left almost over the southern airfield boundary. This aircraft passed down their left-hand side and did not change course, which was about 080°. It transited the notified winch launching area below the published maximum altitude. No radio call on the [Portmoak Traffic] frequency (129.980MHz) was heard. There was another ASK21 airborne at a similar level on the aerotow combination's right-hand side at the same time, but this does not show on the Flightradar24 playback. Winch launching had ceased for the day. The Eurofox pilot described their avoiding action as a slight turn to the right.

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

THE IKARUS PILOT reports that, at the time [given in the Airprox notification], their aircraft was approximately 4-5mins into a short flight. They were accompanied by a passenger who had expressed a wish to see the Loch Leven area from the air. They briefed their passenger that they planned to route to the south of an area where gliders could be active. As part of a short safety brief, they explained to [their passenger] that their eyes were also useful in looking out, and that should they make visual contact with another aircraft they should draw attention to it and point.

They elected to route around the south side of Loch Leven in order to ensure Portmoak gliding centre, and its gliding circuit, were clearly visible on the left side of their track. They maintained a cruise-climb at 70kts, climbing to 3000ft, initially on a southbound heading. Forward visibility may have been slightly compromised in the cruise-climb but intermittent climb checks were made at 500ft intervals. Passing

[1] Balado Air/Ground Radio was not attended at the time of the Airprox.

abeam the southern end of Loch Leven, they turned on to an easterly heading and estimate that they were climbing through 2200ft to the south of the loch. They do not recall a close-proximity encounter with a Eurofox aircraft or a situation which compromised flight safety.

They have subsequently spoken with their passenger who, similarly, does not remember seeing an aircraft in close proximity to their own aircraft. [The passenger] also confirmed that at no time did [the pilot of the Ikarus] draw attention to any aircraft passing in close proximity, and could not remember any abrupt avoiding action at any point during the flight or recall them referring to such action.

The passenger did recall that as they were passing south-abeam Portmoak airfield on an easterly heading, that [the pilot of the Ikarus] had drawn their attention to a glider-tug towing a glider into the air. The tug, and accompanying glider, were to the north, and well below, their position. They would estimate they were below by an estimated 2000ft, climbing slowly. They therefore assume that this cannot be the aircraft concerned in this Airprox.

A good lookout was maintained at all times throughout the flight and the aircraft was equipped with [an EC device with ADS-B 'in']. No annunciation was received of proximate aircraft.

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

Factual Background

The weather at Edinburgh was recorded as follows:

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METAR EGPH 101620Z 05006KT 9999 BKN035 20/17 Q1014
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Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft could be positively identified from Mode S data.

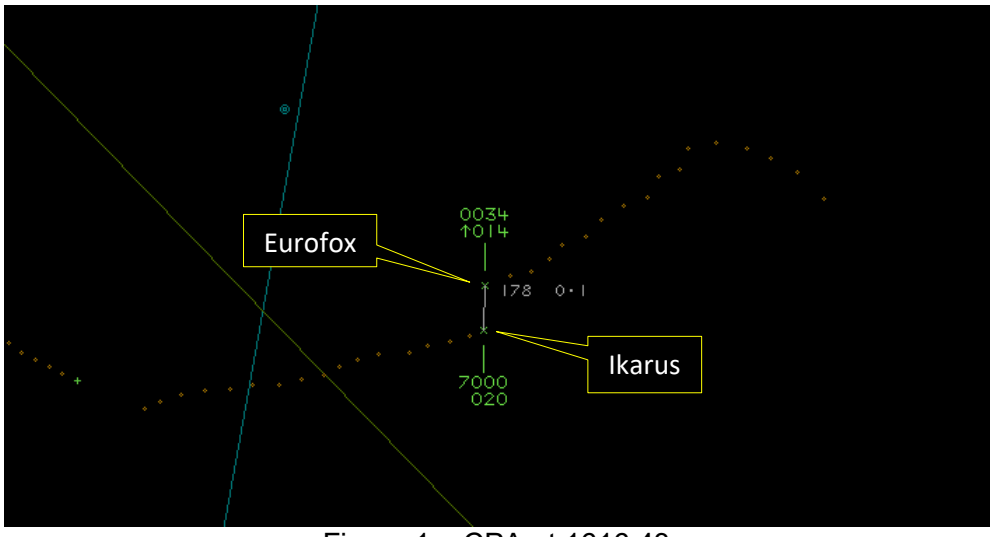


Figure 1 – CPA at 1616:43

The Eurofox and Ikarus 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] If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.[3] An aircraft

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

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 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 the chart segment in Part A. A greater density of gliders, and aircraft towing gliders, may be expected nearby at any time during daylight hours, and at any altitude up to cloud-base. When winch-launched, gliders may climb at rates up to 4000ft/min to the maximum altitude indicated (2400ft AMSL at Portmoak).

The Portmoak aerodrome VHF channel (129.980MHz) is listed in ENR 5.5. If transiting nearby below 3000ft AAL, a brief broadcast call on the Portmoak channel using "Unattended Aerodrome" phraseology (CAP 413 §4.179 et seq.) could help avoid conflicts and increase everyone's situational awareness.

AOPA

Portmoak is a busy gliding airfield and, as such, it is important to keep a good lookout when flying in the vicinity and to communicate with the site. It is heartening to see both those involved had additional EC but which on this occasion unfortunately didn't alert.

Summary

An Airprox was reported when a Eurofox and an Ikarus flew into proximity 0.5NM east of Portmoak at 1617Z on Thursday 10th August 2023. Both pilots were operating under VFR in VMC, the Eurofox pilot listening out on the Portmoak Traffic frequency and the Ikarus pilot listening out on the Balado Traffic and Edinburgh Radar frequencies.

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.

The Board first considered the actions of the pilot of the Ikarus. Noting that the pilot had been aware of the likelihood to have encountered gliders along their intended route, members commended the inclusion of specific instructions to their passenger during their pre-flight safety briefing. Members were in agreement, therefore, that the pilot of the Ikarus had had generic situational awareness of gliding activity in the area. In consideration of the EC equipment fitted to the Ikarus, members noted that an alert to the presence of the Eurofox would have been expected but that no alert had been reported. Some members suggested that the vertical separation of the aircraft had been such that an alert may not have been triggered.

The route that the pilot of the Ikarus had taken was considered, and members were in agreement that, as they had passed approximately 0.1NM from glider-launching activities, the requirement to have maintained a very keen lookout had been paramount. Indeed, it was noted that the pilot of the Ikarus had visually acquired the Eurofox as it had been towing a glider into the air. Nevertheless, members felt that it may have been prudent for the pilot of the Ikarus to have tuned their radio to the Portmoak Traffic frequency, and to have transmitted their intentions for the benefit of others' situational awareness, given that they had passed so close to the site.

[4] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

Members next turned their attention to the actions of the pilot of the Eurofox. It was noted that the EC equipment fitted to the Eurofox would not have been expected to have alerted to the presence of the Ikarus. Members were in agreement that the pilot of the Eurofox had not had situational awareness of the Ikarus until it had been sighted, and noted that, upon visual acquisition, their avoiding action had been described as "*a slight turn to the right*". Members agreed that that indicated that urgent avoiding action had not been necessary.

Concluding their discussions, it was agreed that both pilots had visually acquired the other in plenty of time to have considered the safest course of action. It was further agreed that there had been significant vertical separation between the aircraft and that no risk of collision had existed. As such, the Board assigned Risk Category E to this event. Members agreed on the following contributory factors:

CF1. The pilot of the Ikarus had not communicated their intentions on the Portmoak Traffic frequency.

CF2. The pilot of the Eurofox had not had situational awareness of the presence of the Ikarus until it had been visually acquired. The pilot of the Ikarus had had generic situational awareness of the presence of gliders in the vicinity.

CF3. The EC equipment fitted to the Eurofox would not have been expected to have detected the presence of the Ikarus.

CF4. The EC equipment fitted to the Ikarus would have been expected to have detected the presence of the Eurofox but no alert was reported.

CF5. The pilot of the Eurofox was concerned by the proximity of the Ikarus.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023178			
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
	• Situational Awareness of the Conflicting Aircraft and Action			
2	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			
3	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
4	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
	• See and Avoid			
5	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

Degree of Risk: E.

Safety Barrier Assessment[5]

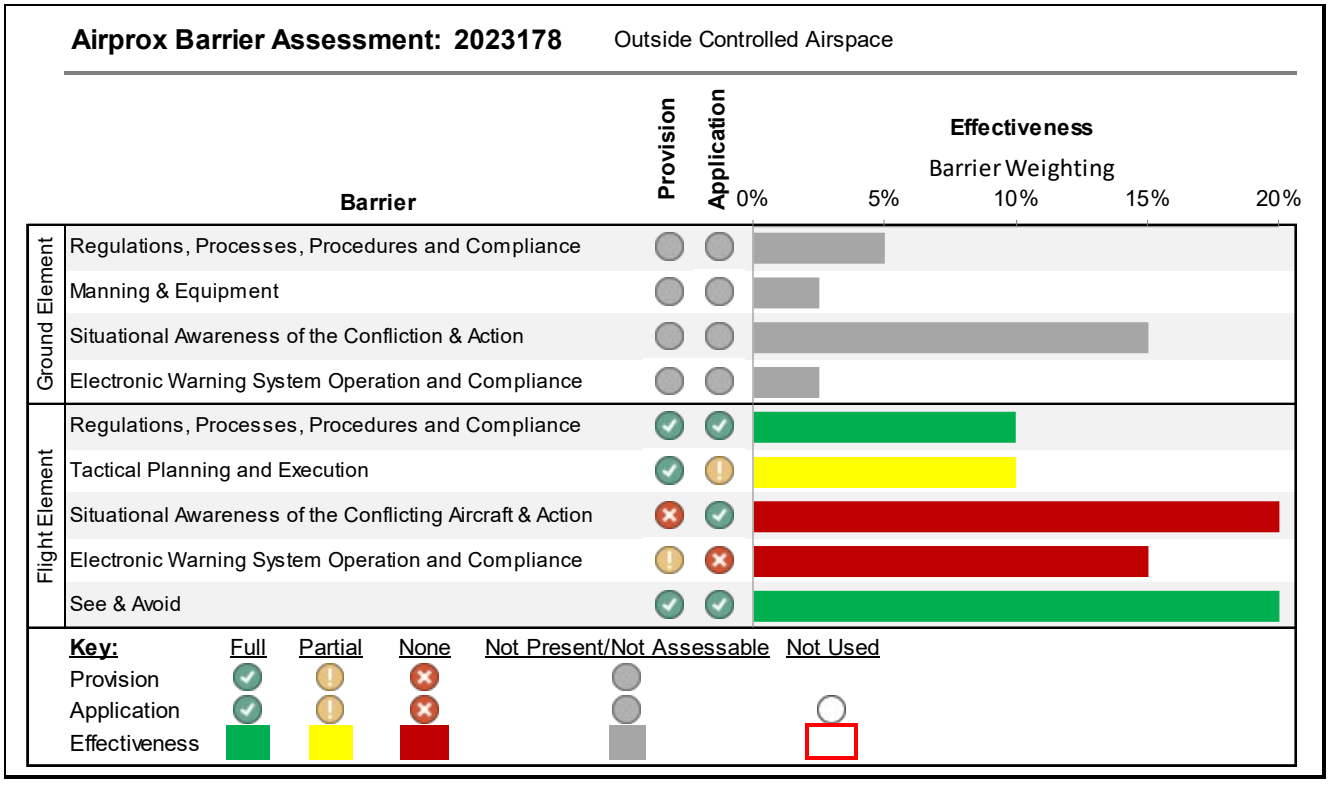
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because it may have been prudent for the pilot of the Ikarus to have communicated their intentions on the Portmoak Traffic frequency.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the pilot of the Eurofox had not had situational awareness of the presence of the Ikarus until it had been visually acquired.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC equipment fitted to the Eurofox would not have been expected to have detected the presence of the Ikarus. The EC equipment fitted to the Ikarus would have been expected to have detected the presence of the Eurofox but no alert was reported.



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