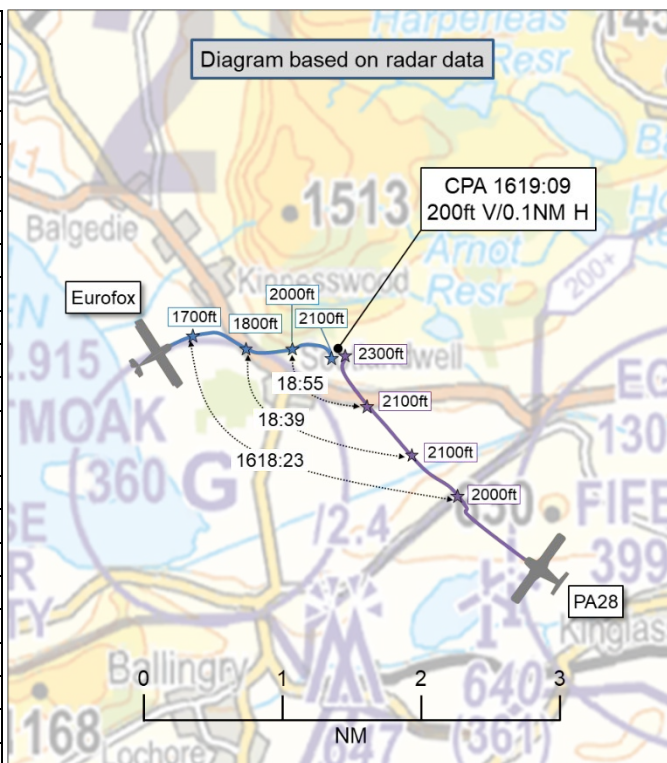


AIRPROX REPORT No 2024196

Date: 06 Aug 2024 Time: 1619Z Position: 5612N 00318W Location: Scotlandwell

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Eurofox	PA28
Operator	Civ FW	Civ FW
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	Portmoak Base	Scottish Info
Altitude/FL	2100ft	2300ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Black/yellow	White/Brown
Lighting	Nav, wingtip strobes, landing.	Nav, landing, strobe.
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1500ft	2100ft
Altimeter	QFE (991hPa)	QNH (1014hPa)
Heading	090°	350°
Speed	60kt	95kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	50ft V/350m H	500ft V/250m H
Recorded	200ft V/0.1NM H	



THE EUROFOX PILOT reports that they were PIC of a towplane climbing to an anticipated release height of 1500ft AGL. Gliders were being released close to the local hill which was allowing soaring. Shortly before glider release, they saw an SEP aircraft on a reciprocal heading almost at the same level. It made a slight turn to the right at approximately 1000m away or less. It was one of two aircraft that transited the local gliding area at that time. These aircraft made no R/T call on their frequency. Identification of the other aircraft was made on return to the airfield.

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

THE PA28 PILOT reports that they were [on a cross-country flight]. As they turned northerly, speaking to Scottish Information on 119.875MHz, they were east of Portmoak. They spotted a glider in the distance travelling west and an aircraft towing a glider south. They spotted this as they turned north after departure. They then made a right turn to make sure there was ample space between them and the other aircraft, although they were above the other aircraft by clear margins. The aircraft did not get close enough where avoidance action was needed, it was just to give extra room between aircraft. There were strong tailwinds (north) of up to 30kts, no cloud and overall good weather.

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

THE SCOTTISH INFORMATION FISO reports that the pilot did not report an Airprox, and that they had no recollection of the event.

Factual Background

The weather at Edinburgh was recorded as follows:

METAR EGPB 061620Z AUTO 22015KT 9999 FEW038/// 19/10 Q1003

Analysis and Investigation

NATS

Information available to the investigation included a report from the Scottish FISO, NATS radar and R/T recordings.

The pilot of [the PA28] contacted the Scottish Information FISO [from their departure point] at 1617:40 and requested a Basic Service. At the time the pilot checked in, they had reported [their type, flight details and POB] climbing through 2500ft. Review of the radar replay at this point showed that the Mode C displayed the aircraft climbing through FL018.

The Scottish Information FISO advised the pilot of [the PA28] at 1618:18 that it was a Basic Service and to squawk A7401; the Mode A was observed to change to A7401 at 1618:30.

[Eurofox c/s] was a glider-towing aircraft from Portmoak squawking A0034.

Portmoak is shown on the 1:500K VFR chart with a winch launch height of 2400ft AMSL with activity detailed as sunrise to sunset.

[The PA28] was observed to pass 1.1NM east abeam Portmoak indicating FL022 at 1619:08 with [the Eurofox] 0.2NM ahead and 100ft below indicated on Mode C. The Closest Point of Approach was observed on NODE multi-track radar at 1619:08 as 0.1NM and 200ft.

The pilot of [the Eurofox] was not in receipt of a service from Scottish Information and no reference to an Airprox was made by the pilot of [the PA28].

Scottish Information is not informed of specific activity at Portmoak.

The pilot of [the PA28] was subsequently transferred to [their enroute frequency] at 1621:32.

Scottish Information is a non-surveillance sector and the FISO had no responsibility to monitor the progress of the aircraft. Due to the delay in being informed of the Airprox, the FISO had no recollection of the specific flight or event.

In conclusion, NATS assessed that the Airprox occurred when the pilot of [the PA28] flew in close proximity to the Portmoak glider site while activity was taking place. The pilot of the glider-towing aircraft subsequently filed an Airprox to UKAB, and NATS Safety Investigations were informed a week later. The Scottish Information FISO could not recollect the event and no reference to an Airprox was made on frequency. The reporting pilot was not in receipt of a service from Scottish Information.

The Closest Point of Approach occurred at 1619:12 and was recorded on Multi-Track Radar as 0.1NM and 200ft. The incident was resolved by the geometry of the aircraft resulting in increased separation being restored on their respective tracks.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were positively identified using Mode S data. The Eurofox was climbing out of Portmoak at 2100ft and the PA28 was also in a climb at 2300ft on the radar display, using 1013hPa as a reference for the altitudes. The PA28 was seen in a slight right turn away from the Eurofox just prior to passing on its left.

CPA was seen to occur at 1619:09 with 200ft vertical and 0.1NM horizontal separation (Figure 1).

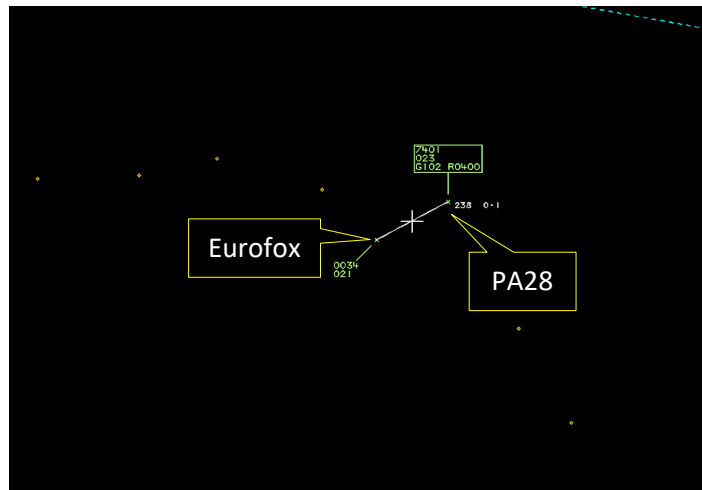


Figure 1 – Time 1619:09 – CPA separation 200ft and 0.1NM.

The Eurofox 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.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 PA28 pilot was required to give way to the Eurofox glider tug.³

Comments

AOPA

When planning a flight, it is useful to remember GASCo Take2⁴ recommendations. When flying it is also best practice to obtain the best radar-derived Air Traffic Control Service which, in this case, could have been provided by Leuchars station.

BGA

There are about 20,000 aircraft movements each year at Portmoak airfield, which operates every day during daylight hours (weather permitting). When the wind has a westerly component, the corridor between the airfield and the closest part of the Lomond Hills, 1NM to the NNE, is heavily used by aircraft in transit between them, and by gliders flying a right-hand circuit on the north side of the airfield. If transiting nearby below 3000ft AAL, a brief broadcast call on the Portmoak aerodrome VHF channel (shown on CAA charts and listed in AIP ENR 5.5) using "Unattended Aerodrome" phraseology (CAP 413 §4.162 et seq) could help avoid conflicts and increase everyone's situational awareness.

Summary

An Airprox was reported when a Eurofox and a PA28 flew into proximity at Scotlandwell at 1619Z on Tuesday 6th August 2024. The Eurofox pilot was operating under VFR in VMC not in receipt of a FIS, and the PA28 pilot was operating under VFR in VMC in receipt of a Basic Service from Scottish Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the FISO involved and a report from the appropriate operating authority. Relevant contributory

¹ (UK) SERA.3205 Proximity.

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

³ (UK) SERA.3210 Right-of-way (c)(2) Converging.

⁴ [GASCo Take2 recommendations](#)

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 looked at the actions of the Eurofox glider-tug pilot and noted that the electronic conspicuity equipment in the Eurofox had been of a type that was commonly used in gliders and, as such, had been incompatible with that of the transponding PA28 (CF4). The Board agreed, therefore, that this had not afforded the pilot with the situational awareness required when working in busy congested airspace and that, furthermore, the pilot had had no situational awareness of the presence or position of the PA28 approaching the northeast of the Portmoak gliding site (CF3). The Board also agreed that, upon sighting the approaching PA28, the Eurofox pilot had been concerned by its proximity (CF5).

The Board then considered the actions of the PA28 pilot, and after discussing that the pilot had departed from a local airfield, members felt that the pilot should have been very aware of the activity at nearby Portmoak which the Board noted as being an exceptionally busy area with tugs and gliders, especially on the ridge to the northeast of the gliding site. The Board agreed that the choice of a Basic Service from Scottish Information, where there is no access to surveillance-derived information, had not been conducive to increasing the pilot’s situational awareness in the environment that they had planned to fly through, and members felt that the pilot could have either requested a Traffic Service from Leuchars or, considering how close they had flown to the glider site on this occasion, have called Portmoak and communicated their intentions to them (CF2). Furthermore, members discussed the possibility that the pilot could also have planned their route further to the east, away from Portmoak, particularly as the weather had been suitable for a transition above the high ground or between the hills, rather than over the lower ground adjacent to the Portmoak glider site. In their discussions the Board agreed that, as the PA28 pilot had not received any specific information regarding the activity in the area, the pilot had only had generic situational awareness of the possible presence of gliders and their tugs in the vicinity of Portmoak (CF3).

Moving their attention to the actions of the Scottish FISO, the Board agreed that the FISO had not been required to monitor the flight under the terms of a Basic Service and, without the use of surveillance equipment, had been unable to provide any specific information on aerial activity in the vicinity of Portmoak (CF1).

To conclude their discussions, members determined the category of risk by agreeing that safety had been degraded but that the sighting by the Eurofox pilot had been sufficient to monitor the situation while the PA28 pilot’s timely and effective avoiding action had been sufficient to prevent the aircraft from coming into close proximity. As such, the Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2024196				
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	• 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				
3	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				

4	Technical	<ul style="list-style-type: none"> 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				
5	Human Factors	<ul style="list-style-type: none"> 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: C.

Safety Barrier Assessment⁵

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 the Scottish Information FISO had not been required to monitor the PA28's flight under a Basic Service.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot could have requested a surveillance-based service from Leuchars or called Portmoak to inform the gliding operation of their intention to transit the area.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Eurofox pilot had been unaware of the presence and position of the PA28, and the PA28 pilot had only had generic situational awareness of the presence of gliders and tug aircraft in the vicinity of Portmoak.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the Eurofox electronic conspicuity equipment had not been able to detect the transponder emissions from the PA28.

⁵ 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: 2024196		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:							
	Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	⊘	○		
Application	✓	⚠	✗	⊘	○		
Effectiveness							