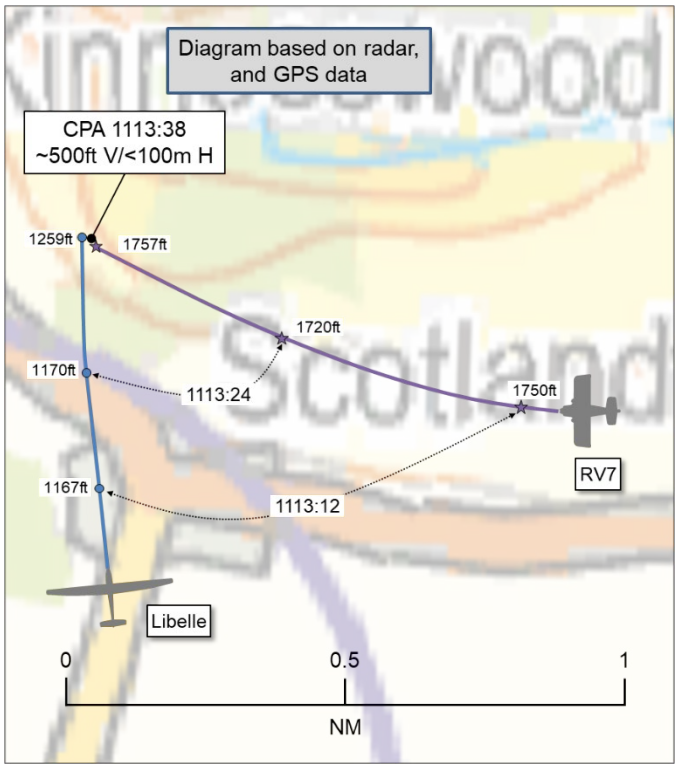
AIRPROX REPORT No 2024268

Date: 03 Nov 2024 Time: 1114Z Position: 5612N 00319W Location: ivo Scotlandwell

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Libelle	RV7
Operator	Civ Gld	Civ FW
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Unknown
Provider	Portmoak	Unknown[1]
Altitude/FL	1259ft	1757ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	White
Lighting	None	Strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1100ft	NK
Altimeter	QFE	QNH (1029hPa)
Heading	360°	NK
Speed	50kt	134kt
ACAS/TAS	FLARM /SkyEcho	PilotAware
Alert	None	None
Separation at CPA		
Reported	400ft V/50m H	Not seen
Recorded	~500ft V/<100m H	



THE LIBELLE PILOT reports that they were flying their glider northbound whilst soaring on Bishop Hill. After leaving the ridge at around 1110 to attempt to enter a wave overhead Portmoak Airfield, they could not establish into the wave, so they headed back to Bishop Hill to regain height. They reached Bishop Hill at around 900ft AAL (below ridge-top height) and began to slowly climb. They saw the aircraft passing from their right-to-left above. Due to their altitude and the fact that the [other aircraft] was flying over the ridge, it was only possible to see the other aircraft when they were nearly directly above. Once they saw it, they didn't have enough time to take any avoiding action before [the other aircraft] had flown past. Their glider was fitted with [two types of electronic conspicuity equipment]. Shortly after the overflight, after climbing above the ridge-top, they called Portmoak Base to report the overflight. They maintained a listening watch for the entire flight and did not hear a radio call from the other aircraft. However, [they stated that the other pilot] may still have made [a radio call] that was blocked by the ridge. [They noted that] Bishop ridge is used substantially by gliders from Portmoak and paragliders launching from the ridge. At the time there were a couple of other gliders flying on the ridge. The area around Portmoak is marked on the charts for 'intense gliding activity'.

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

THE RV7 PILOT reports that, given the detail [provided in the Airprox notification], they assumed [the Airprox] took place near Portmoak Gliding Site. There was low cloud to the southeast of the site but it was clear to the north and northwest. They had descended, but due to low cloud over West Lomond they remained south. They saw two gliders below them flying along the ridge line west of West Lomond high ground. They were not aware of an Airprox.

[1] The RV7 pilot reported that they were in communication with Scottish Information. The transponder was displaying a Scottish Information squawk, but they had informed Scottish Information that they were 'changing to Balado' prior to the time of the Airprox.

THE PORTMOAK AIRFIELD OPERATOR reports that they did not have an ATS, AGCS or any recording capability, and were unable to assist with the Airprox enquiry.

THE SCOTTISH FISO reports that at 1106:51 the pilot of [the RV7] reported coasting in at Bonnybank and commencing descent. The FISO asked them to report leaving the frequency, to which they reported that they would do so *'now'* and were *'changing to Balado'.* The pilot also reported that they would change to squawk conspicuity, although radar shows that they retained the 1177 squawk.

This discussion ended at 1107:18, approximately 13NM prior to the location of the Airprox, which [the RV7] reached at approximately 1114. There was no further communication between the pilot and Scottish Information on this flight. Therefore, no NATS unit was in communication with the pilot of [the RV7] at the time of the Airprox.

THE BALADO AIRFIELD OPERATOR reports that they were not aware of this Airprox incident or it involving any staff at the airfield.

Factual Background

The weather at Edinburgh Airport was recorded as follows:

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METAR EGPH 031050Z 26006KT 9999 BKN012 11/09 Q1028
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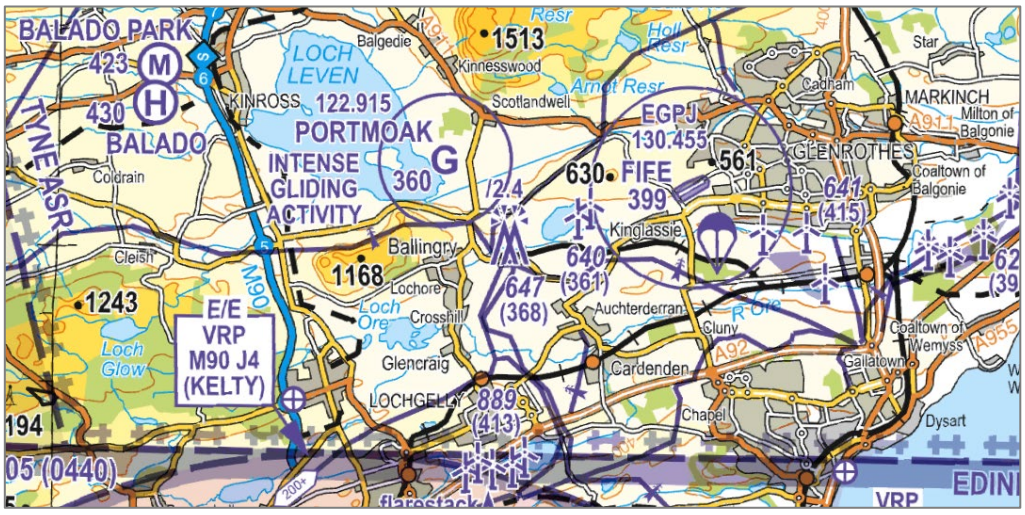

Figure 1: Airspace to the north of Edinburgh CTA and area of 'intense gliding activity'

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the RV7 was positively identified using Mode S data and was seen flying in the vicinity of Scotlandwell to the northeast of Portmoak gliding site. As noted by the Scottish FISO, the RV7 was displaying the Scottish Information squawk. The Libelle was not detected by radar.

A further analysis of ADS-B data sources was undertaken and both aircraft were positively identified. The RV7 was seen with the Libelle on its left (Figure 2).

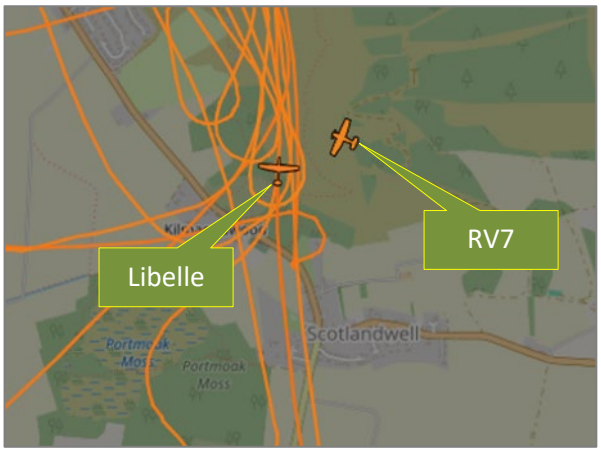

Figure 2 Time 1113:30 Libelle with RV7 passing from right-to-left

At 1113:40 the Libelle and RV7 passed each other (Figure 3). The CPA was assessed as having occurred at 1113:38 with approximately 500ft vertical and less than 100m lateral separation, by interpolation of the GPS data from both pilots' navigation devices.

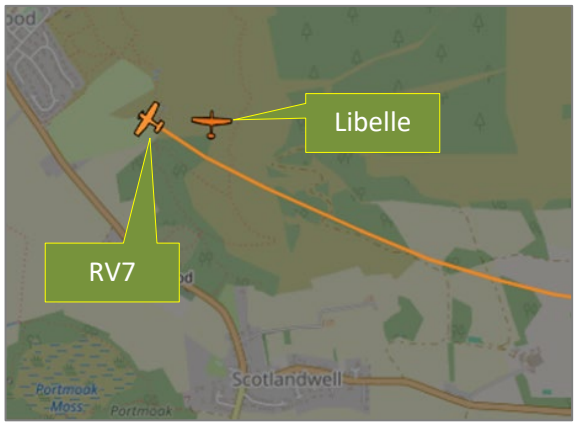

Figure 3 Time 1113:40 post CPA with Libelle tracking north.

The Libelle and RV7 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 converging then the RV7 pilot was required to give way to the Libelle.[3]

Comments

BGA

There are about 20,000 aircraft movements each year at Portmoak airfield, which operates every day during daylight hours (weather permitting), launching gliders by both aerotow and winch. The maximum winch launch altitude is 2360ft AMSL (notified in AIP ENR 5.5), and a greater density of gliders may be expected in nearby Class G airspace at any time during daylight hours, and any altitude up to the base of the overlying controlled airspace.

In westerly winds the Lomond hills to the north of the airfield generate rising air that's used by gliders to stay airborne. Under these conditions the 1NM corridor between Portmoak airfield and the closest part of the Lomond Hills at Scotlandwell is heavily used by gliders in transit between them, typically between 1000ft and 2000ft AMSL.

As in this case, gliders operating within 10NM of Portmoak below 3000ft AAL usually monitor the Portmoak VHF channel (notified on CAA charts and in AIP ENR 5.5). If transiting nearby, a brief

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.

broadcast call using "Unattended Aerodrome" phraseology (CAP 413 §4.162 et seq) could increase everyone's situational awareness and help avoid conflicts.

AOPA

AOPA fully endorses the GASCO 'Take Two' [advice][4] which, whilst this primarily is concerned with controlled airspace, is applicable to all notified airspace. AOPA and the BGA recommend where possible to contact the gliding site to improve everyone's situational awareness. As can be seen in this case, both aircraft had and were using Electronic Conspicuity (EC) equipment which did not alert, unfortunately this will continue until a preferred system of EC is announced by the Department of Transport.

Summary

An Airprox was reported when a Libelle and an RV7 flew into proximity in the vicinity of Scotlandwell at 1114Z on Sunday 3rd November 2024. Both pilots were operating under VFR in VMC, the Libelle pilot listening out on Portmoak Radio, and the RV7 pilot likely not in receipt of a FIS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data for both aircraft, reports from the FISO and ground operators involved and a report from the appropriate operating authority. 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 looked at the actions of the Libelle pilot and noted that they had been in communication with the operators at Portmoak gliding site. The Board acknowledged that the Libelle pilot had been concerned about the proximity of the RV7 and its overflight of the local gliding area and, when able, had reported the RV7 directly to Portmoak. Members noted that the Libelle's electronic conspicuity equipment had not detected any emissions from the RV7 and that the pilot, therefore, had had no situational awareness of the RV7's presence or position until after they had sighted it.

Turning their attention to the actions of the RV7 pilot, the Board noted that the weather, in particular the low cloud, had not afforded the pilot many options for their route to Balado from a southeasterly approach. The Board agreed that, under the circumstances, the pilot had needed to route fairly close to the glider site to achieve their objective and members felt that it would have displayed sound threat and error management to have called Portmoak Radio, thus enabling any radio-equipped pilots tuned to the Portmoak frequency to have gained situational awareness of the RV7 passing to the northeast of the site via Scotlandwell enroute to Balado, which is just 4.5NM from Portmoak. Members agreed that the RV7 pilot had had generic situational awareness of the presence of gliders in the vicinity of Portmoak and had reported sighting two gliders. However, members noted that because the RV7's electronic conspicuity equipment had not detected any emissions from the equipment fitted to the Libelle, although it would have been expected to have done so, the RV7 pilot's awareness of the Libelle's position had been non-specific.

The Board agreed that there had been no ATC involvement with this Airprox event, and that the RV7 pilot had been changing to Balado frequency prior to passing Portmoak.

On concluding their discussions the Board agreed that, with the vertical separation at approximately 500ft and the RV7 pilot's awareness of the gliding activity, normal procedures, safety standards and parameters had pertained. As such, the Board designated a Risk Category E to this event.

Members agreed on the following contributory factors:

[4] GASCo Take Two https://www.gasco.org.uk/resources/publications/take-two

CF1. The RV7 pilot had not communicated their intentions to transit the area of intense gliding activity to traffic operating in the vicinity of Portmoak.

CF2. The Libelle pilot had had no situational awareness of the presence or position of the RV7. The RV7 pilot had only had generic awareness of gliders operating in the area by the presence of an active gliding site nearby.

CF3. Despite both aircraft being equipped with compatible electronic conspicuity equipment. the Libelle's equipment had not detected any emissions from the RV7, and the RV7's equipment had not detected any emissions from the Libelle.

CF4. The Libelle pilot had been concerned about the proximity of the RV7.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024268			
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	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			
4	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 the RV7 pilot could have communicated with Portmoak Radio whilst flying in the vicinity of the glider site.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Libelle pilot had no situational awareness of the presence or position of the RV7, and the RV7 pilot had only generic situational awareness of the presence of gliding activity in the area.

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

Electronic Warning System Operation and Compliance were assessed as **ineffective** because neither the Libelle's nor the RV7's electronic conspicuity equipment detected any emissions from the other aircraft.