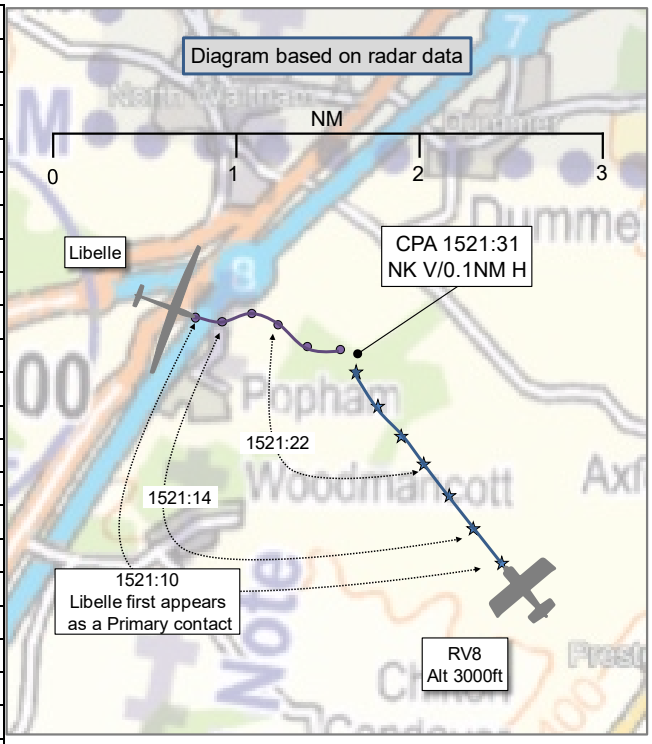
AIRPROX REPORT No 2023092

Date: 28 May 2023 Time: 1522Z Position: 5111N 00110W Location: 2NM E of Popham Airfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Vans RV8	Libelle
Operator	Civ FW	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	None
Provider	Solent Radar	N/A
Altitude/FL	3000ft	NK
Transponder	A, C, S	Not fitted
Reported		
Colours	Dark Blue	White
Lighting	Strobes	Nil
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	3000ft	2000ft
Altimeter	QNH (1023hPa)	QNH
Heading	015°	100°
Speed	125kt	80kt
ACAS/TAS	FLARM	FLARM
Alert	None	None
Separation at CPA		
Reported	NK V/ NK H ('Close')	300ft V/0.0NM H
Recorded	NK V/0.1NM H	



THE RV8 PILOT reports that they routed from [departure airfield] at 2300ft on a Solent listening squawk, with Farnborough West monitored on box two. They then routed around the notified gliding competition which took them towards Popham. The circuit there appeared active, so they climbed to 3000ft and passed just to the east to give space to overhead joining traffic. Just north of Popham they got close to a glider, which passed left-to-right just above and behind them. The pilot's rear seat passenger said the glider appeared from their 8 o'clock position. The passenger recalled that the glider had been virtually head on to their left-hand side - they saw the glider but the pilot did not. The RV8 pilot reports that they had a functioning [TAS] but no warning noted. The pilot reported that they had been manoeuvring as they often do to change heading and to make themself as conspicuous as possible. The competition had been notified and the RV8 pilot assumed that the task must have been finishing from the west. The aircraft passenger recalled that the glider appeared to be going very fast so possibly in a final glide. The pilot had briefed their passenger to keep a specially good lookout because of the competition and had taught them how to recognise threat traffic and report it using the clock-code, which they are good at, but in this case there had been no time to react. The passenger confirmed that they believed there to have been a risk of collision. The RV8 pilot noted that they are also a 1000+hr glider pilot, glider tug pilot and operate from a gliding site.

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

THE LIBELLE PILOT reports that they were on final glide back to [destination airfield] during a task and used a turning point near Popham to bring them in the same way as everyone else for safety reasons, so that all traffic would approach from the same direction rather than people coming from every angle. The Libelle pilot reports that they lowered the aircraft nose to give some height between themselves and the crossing aircraft, but did not want to lose so much height that would need to land in a field instead of making it safely to [destination airfield]. They recall that they were comfortable with the separation. They noted that they did not think that anything needed reporting, just that the powered

plane should have better lookout. The Libelle pilot noted that they fly at least twice a week either gliders or motor-gliders.

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

Factual Background

The weather at Farnborough was recorded as follows:

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METAR EGLF 281520Z AUTO 04012KT 360V070 9999 NCD 21/07 Q1022=
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Analysis and Investigation

UKAB Secretariat

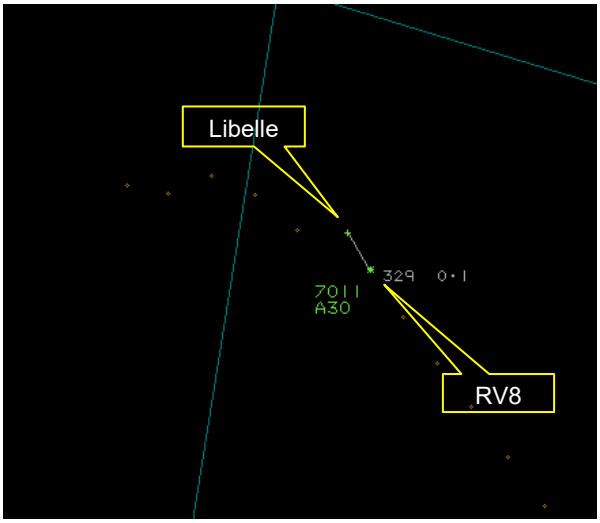


Figure 1: CPA NK V/0.1NM H at 1521:31

The RV8 and Libelle 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 converging then the RV8 pilot was required to give way to the Libelle.[2]

Comments

AOPA

When flying towards gliders they are difficult to spot due to having a very small frontal profile, the RV8 pilot had been doing all the recommended things and had compatible EC which didn't alert in this case, further demonstrating the importance of good lookout.

BGA

Both aircraft were fitted with compatible EC equipment which should have warned each pilot of the other's presence. It would be useful to understand why this barrier did not function.

Summary

An Airprox was reported when a VANS RV8 and a Libelle glider flew into proximity 2NM east of Popham at 1522Z on Sunday 28th May 2023. Both pilots were operating under VFR in VMC, the RV8 pilot was listening-out on Solent Radar and the Libelle pilot was not in receipt of an Air Traffic Service.

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

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs/video recordings. 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 discussed the actions of the RV8 pilot, opining that they appeared to have done everything possible to avoid interaction with those involved in the gliding competition, suggesting that perhaps the addition of an appropriate Air Traffic Service from Farnborough might have added to the pilots SA although, in this case, the Libelle had not been not equipped with a transponder and so it would have required that pilot to have been in receipt of a service from the same unit to add any SA to the situation. Therefore, the Board agreed that the RV8 pilot had only had generic situational awareness of the presence of the glider from the competition NOTAM (**CF1**).

The Board then discussed whether the Libelle identified had actually been the second aircraft involved; the pilot had reported an altitude at the time of 2000ft against the RV8 pilot's report of 3000ft. The UKAB secretariat noted that the time between the event and the tracing of the Libelle had been one month, which could explain why the pilot's recollection had faded. The Libelle pilot had, in the intervening period, changed their flight logging equipment and deleted all data from that source. However, the UKAB secretariat had access to unassured data which placed the Libelle much closer to the 3000ft level of the RV8; that height would also have much better correlated with the Libelle pilot's recollection of being in their final dive to their destination.

The Board noted, with some disappointment, that both aircraft had been equipped with compatible EC equipment but that neither had triggered an alert to the proximity of the other (**CF2**). The Board did, however, wish to remind all pilots of the ongoing availability of a funding stream to equip with such systems, noting that the current window for such support would close in March of 2024, and that work within the CAA is advancing to create a single technical standard for the carriage and use of EWS equipment.

Members noted that the weather had been reported as 'good VMC' and, although the Libelle pilot reported being 'comfortable with the separation', the Board noted that the RV8 pilot had attained only very late sighting of the other aircraft (**CF3**) and had then been concerned by the proximity of the glider (**CF4**).

When assessing the risk, members considered the reports from both pilots and the radar replays and other recorded data available. They noted that the separation between the 2 aircraft had been minimal and, although the Libelle pilot had been comfortable with the degree of separation, the Board assessed that safety had been much reduced (**CF5**), sufficient to alarm the RV8 pilot. Members therefore assigned risk category B to this Airprox.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023092			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
1	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			
2	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			

3	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
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
	• Outcome Events			
5	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[3]

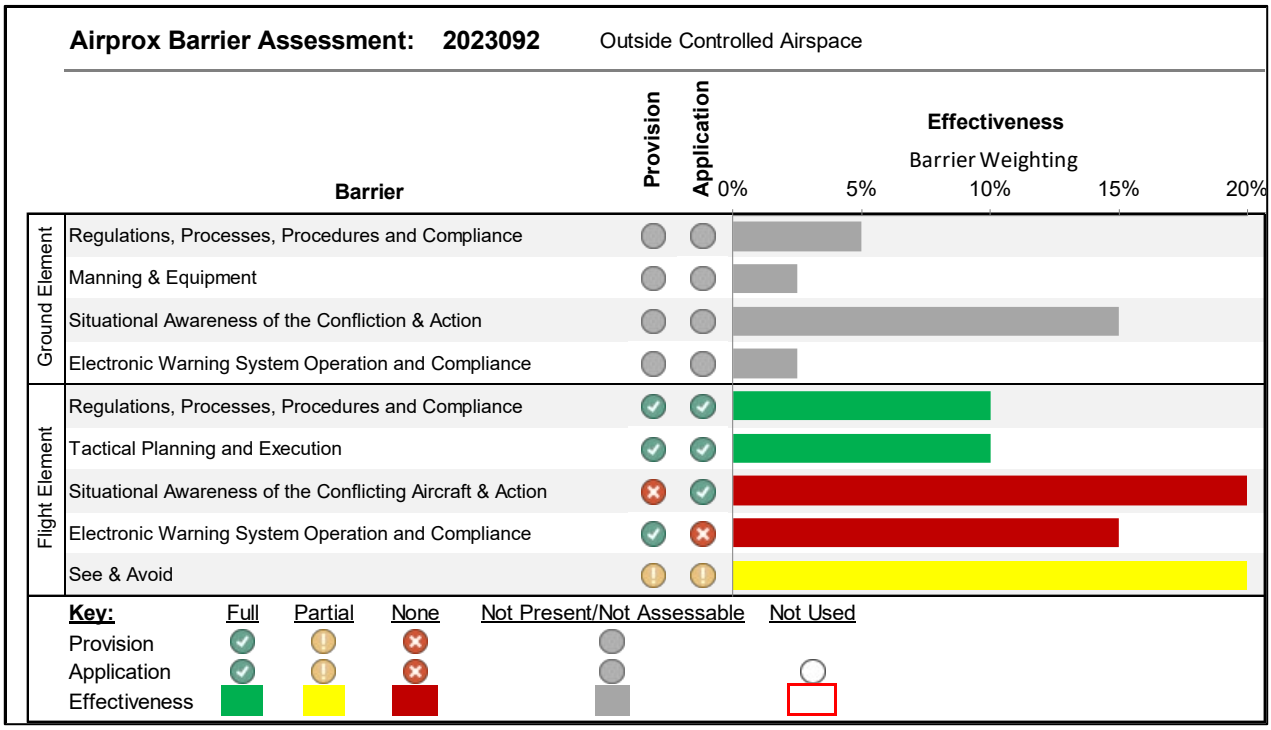
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Libelle pilot had no SA on the RV8. The RV8 pilot had been aware of the gliding competition and had increased their transit altitude to allow for traffic, but had only generic SA of the presence of gliders.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because, although both aircraft carried the same EWS equipment, it had not alerted either pilot to the other's presence.

See and Avoid were assessed as **partially effective** because the RV8 pilot had a late sighting of, and was concerned by the proximity of, the Libelle.



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