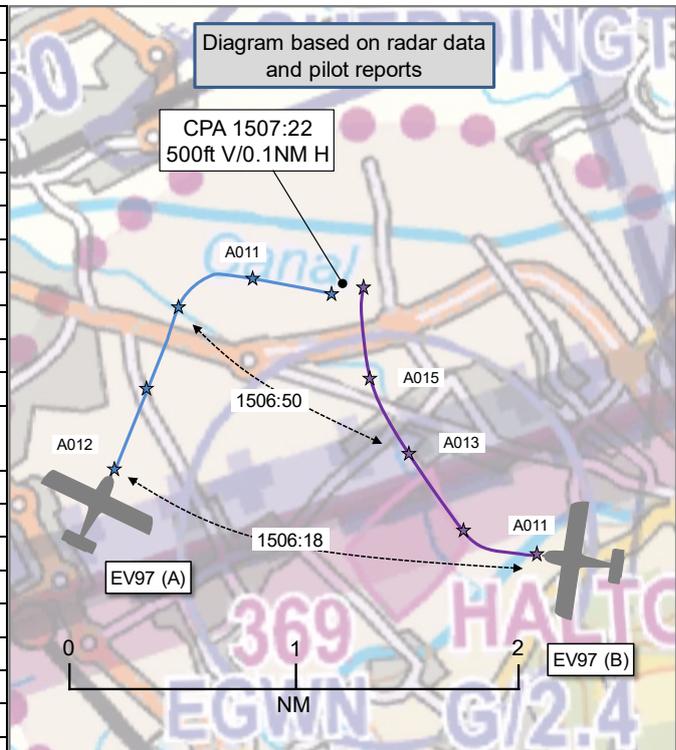


AIRPROX REPORT No 2023188

Date: 20 Aug 2023 Time: 1507Z Position: 5149N 00044W Location: Halton ATZ

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EV97(A)	EV97(B)
Operator	Civ FW	Civ FW
Airspace	Halton ATZ	Halton ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	Listening Out
Provider	Halton Radio	Wycombe Radio
Altitude/FL	A010	A015
Transponder	A, C, S	A, C, S
Reported		
Colours	Silver	Silver
Lighting	Strobe, Beacon, Navigation	NR
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	850ft	1150ft
Altimeter	QFE (1010hPa)	QNH (1022hPa)
Heading	110°	230°
Speed	70kt	70kt
ACAS/TAS	FLARM	PilotAware
Alert	Information	None
Separation at CPA		
Reported	400ft V/<0.5NM H	300ft V/0.25NM H
Recorded	500ft V/0.1NM H	



THE EV97(A) PILOT reports that they had been P/UT in EV97(A) completing differences training [they state that they are a PPL(A) holder] with the P1 and had been finishing their final lesson with circuit practice. They had completed 3 circuits up to that point on RW20RH at RAF Halton. They had been the only aircraft on frequency other than glider launch traffic calls which had not been a factor. The EV97(A) P/UT had called downwind for touch-and-go and continued their circuit. They then turned right base at which point both the EV97(A) P/UT and P1 had heard radio chatter between the glider launch site and Halton radio [they recalled as] "Halton Radio, Chilterns base" to which Halton Radio had replied "Chilterns, yes [...] visual". At that time, the EV97(A) pilots had not known what Halton Radio had been visual with but assumed it to have been a glider coming in to land. Both the EV97(A) P/UT and P1 had kept good lookout to where they had expected the glider to be, on left base RW20. No gliders had been seen so the EV97(A) P/UT had then started to focus on getting the aircraft configured for landing. It had been at this point that the EV97(A) P1 had seen the EV97(B) passing directly above them within a few hundred feet. The EV97(A) P1 had then checked if the P/UT had been happy to continue approach and the P/UT confirmed. The EV97(A) P1 had then communicated with Halton Radio to understand if they had the EV97(B) details to find out what had happened. During this time, the EV97(A) P/UT continued their approach and descended as normal for a touch-and-go on RW20. No radio calls had been heard from the EV97(B) pilot and it had [seemingly] just flown through the ATZ at [almost] circuit height.

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

THE EV97(B) PILOT reports that they had misidentified the airfield on the [moving map display] and had started to approach Halton as they had believed it to have been Wycombe. They had then switched radio frequency to Wycombe [recalling that that had been why they had not been on Halton Radio frequency and had reported their position according to [their moving map display] as they had not been visual with the runway at that time. The EV97(B) pilot had then continued to navigate following the

circuit pattern using the [moving map display] and when they had turned on to what they had believed to have been RW24 final position, they had noticed the EV97(A) below them and also the grass runways and the glider winched-off. The EV97(B) pilot had then immediately stopped the descent and realising that they had been lost, quickly turned right and started climbing to get out of [the Halton] ATZ ASAP.

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

THE HALTON AGO reports that the runway in-use at the time had been RW20RH with glider launches in progress and EV97(A) in the circuit. EV97(B) entered the Halton ATZ and had positioned downwind for RW25RH. EV97(A) had continued in the circuit and positioned for a final approach for RW25. The pilot had then initiated a go-around at approximately 800ft QNH and started a turning climb to the right. This turn had brought EV97(B) very close to the final/base leg for RW20 and EV97(A) who had been on right base at the time. During the climb-out, EV97(B) had been at approximately 1300ft and EV97(A) had been at approximately 900ft within 0.5NM. Glider launches had been in operation at the time and they use the LH circuit for RW20. EV97(B) would have been directly in the gliders operating side of the circuit during the downwind and final approach for RW25.

The AGO perceived the severity of the incident as 'Low'.

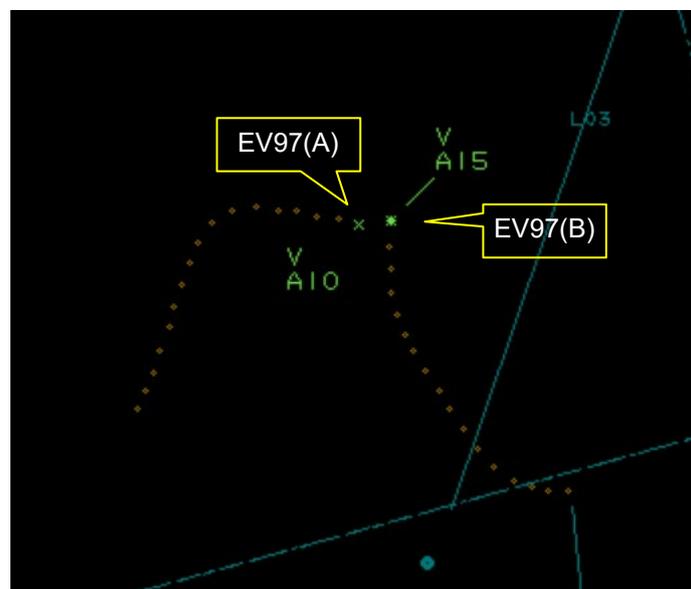
Factual Background

The weather at Luton was recorded as follows:

METAR EGGW 201450Z AUTO 25008KT 9999 BKN041 BKN048 22/14 Q1022=

Analysis and Investigation

UKAB Secretariat



CPA 1507:22 500ft V/0.1NM H

The EV97(A) and EV97(B) 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 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.²

¹ UK Reg (EU) SERA.3205 Proximity.

² UK Reg (EU) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

Summary

An Airprox was reported when EV97(A) and EV97(B) flew into proximity at Halton airfield at 1507Z on Sunday 20th August 2023. Both pilots were operating under VFR in VMC, the EV97(A) pilot in receipt of an AGCS from Halton Radio and the EV97(B) pilot listening-out on the Wycombe Air Park frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar recordings, GPS tracking data and a report from the AGO involved. 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 firstly discussed the actions of the EV97(A) pilot, noting that they had been in a training role and completing a period of circuit exercises. Members acknowledged the radio exchanges between Halton and Chilterns concerning aircraft with which the EV97(A) pilot had been unsighted (**CF10**) and who had not been aware of the presence of the EV97(B) which had mistakenly entered the Halton ATZ. The Board felt that the EV97(A) had been well-equipped with radio, transponder and electronic conspicuity (EC) equipment and had done as much as they could have in this event but had, ultimately, not gained any situational awareness of the EV97(B) (**CF6**).

Turning to the actions of the EV97(B) pilot, members recognised that the pilot had been lost and had been working hard to make the picture they were seeing out of the window match the expected picture they had planned for. Members agreed that, having misidentified Halton, they had erroneously entered the ATZ (**CF3**) without having first complied with appropriate procedures (**CF1**, **CF2**) and, in the belief that they had been at Wycombe Air Park, had been listening out on that frequency rather than that of Halton and therefore had not made appropriate joining calls (**CF4**). As they had progressed towards the airfield they had not seen the EV97(A) in the circuit until very late (**CF9**) and, at that point, had recognised their error and in the Board's view had quite correctly immediately pulled up out of the circuit pattern (**CF5**).

The Board noted that, although both aircraft had been EC equipped, the two units had not been fully compatible (**CF7**, **CF8**) and, combined with the two aircraft operating on different frequencies, the Board considered that this had contributed to a lack of situational awareness for both pilots (**CF6**).

When determining the risk of the Airprox, members considered the reports of both pilots and the report from the AGO. They thought that the EV97(B) pilot had described a late sighting scenario, but one where, fortunately, they had been able to take avoiding action to increase the separation. The Board therefore thought that safety had been degraded but that there had been no risk of collision and assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2023188				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
• Tactical Planning and Execution				
2	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
3	Human Factors	• Airspace Infringement	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace.	E.g. ATZ or Controlled Airspace

4	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
5	Human Factors	• Monitoring of Environment	Events involving flight crew not to appropriately monitoring the environment	Did not avoid/conform with the pattern of traffic already formed
• Situational Awareness of the Conflicting Aircraft and Action				
6	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				
7	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
8	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				
9	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
10	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

Degree of Risk: C.

Safety Barrier Assessment³

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 Halton AGO is not required to sequence traffic in the circuit.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the EV97(B) pilot entered the Halton ATZ without having established prior contact in accordance with Rule 11 of the Rules of the Air Regulations.⁴

Tactical Planning and Execution was assessed as **ineffective** because the EV97(B) pilot had entered the Halton ATZ incorrectly, without having been monitoring the correct radio frequency and did not conform with or sufficiently avoid the traffic of pattern as formed by the EV97(A) pilot.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any Situational Awareness of the presence of the other.

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

⁴ To comply with Rule 11:

- i. An aircraft must not fly, take off or land within the ATZ of an aerodrome unless the commander of the aircraft has complied with paragraphs 2, 3 or 4 as appropriate.
- ii. If the aerodrome has an air traffic control unit the commander must obtain the permission of that unit to enable the flight to be conducted safely within the ATZ.
- iii. If the aerodrome provides a flight information service the commander must obtain information from the flight information centre to enable the flight to be conducted safely within the ATZ.
- iv. If there is no flight information centre at the aerodrome the commander must obtain information from the air/ground communication service to enable the flight to be conducted safely within the ATZ.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the electronic conspicuity equipment carried by the EV97(A) pilot could not detect the emissions from the EV97(B) and the electronic conspicuity equipment carried by the EV97(B) pilot did not issue an alert to the presence of EV97(A) when it might be expected to do so.

See and Avoid were assessed as **partially effective** because the EV97(A) pilot saw the EV97(B) at such a late stage that it could be considered effectively a non-sighting and the EV97(B) pilot saw the EV97(A) at a late stage, albeit thereafter taking action to increase separation and depart the Halton ATZ.

Airprox Barrier Assessment: 2023188		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:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✓	⚠	✗	●				
Application	✓	⚠	✗	●	○			
Effectiveness								