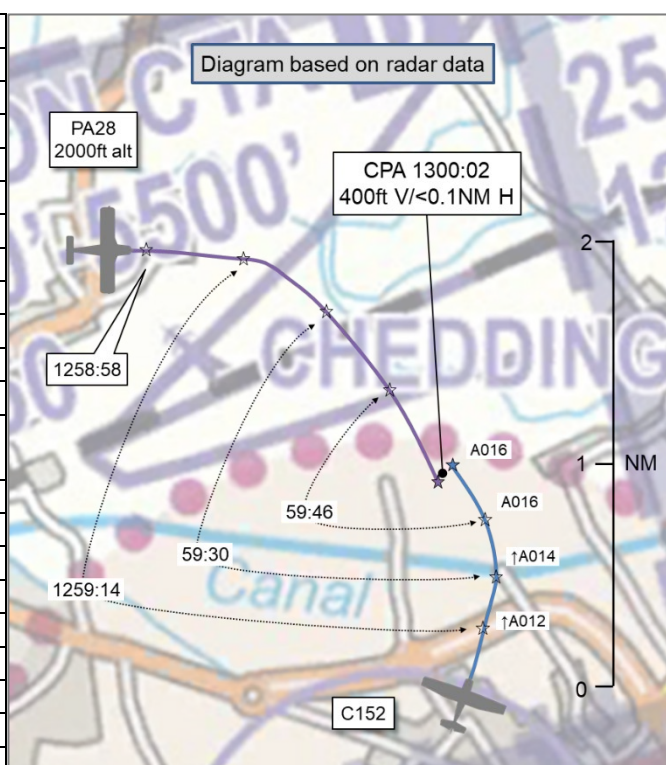


## AIRPROX REPORT No 2022055

Date: 19 Apr 2022 Time: 1300Z Position: 5149N 00044W Location: Halton ATZ

### PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	PA28
Operator	Civ FW	Civ FW
Airspace	Halton ATZ	Halton ATZ
Class	G	G
Rules	VFR	NK
Service	AGCS	None
Provider	Halton Radio	N/A
Altitude/FL	1600ft	2000ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Yellow	White, red
Lighting	Nav, Landing, Beacon, Strobe	NK
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1400ft	NR
Altimeter	QNH (1016hPa)	NK (NR hPa)
Heading	000°	NR
Speed	65kt	NR
ACAS/TAS	SkyEcho	NR
Alert	None	Unknown
Separation at CPA		
Reported	300-400ft V/0m H	NR V/NR H
Recorded	400ft V/<0.1NM H	



**THE C152 PILOT** reports that they were on an instructional flight to conduct stalling in the local area. During the climb-out from a RW02 departure at Halton, at approximately 1400ft QNH, the student noticed an aircraft heading in the opposite direction. It was approximately 500ft above them so they immediately levelled-off. It was a PA28, predominantly white with a dark colour on the underside. The aircraft was just entering the northern edge of the Halton ATZ heading towards Aston Clinton at approximately 1900ft QNH. It flew right over the top of them approximately 300-400ft above - no avoiding action seemed to be taken by the pilot of the other aircraft. The other aircraft was not displayed on the [EC equipment] inside the Cessna. They made contact with Halton Radio to inform them of the aircraft, which they could visually see inside the ATZ. They added that the aircraft had been sighted early which allowed them to level-off and maintain vertical separation - if they had seen it later there would have been a higher risk of collision.

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

**THE PA28 PILOT** declined the UKAB request to submit a report.

**THE HALTON AIR/GROUND RADIO OPERATOR** contributed to the local investigation which has been summarised below.

The Air/Ground Operator perceived the severity of the incident as 'Low'.

### **Factual Background**

The weather at Luton was recorded as follows:

METAR EGGW 191250Z AUTO 06008KT 020V090 9999 OVC047/// //TCU 14/04 Q1016

METAR EGGW 191320Z AUTO 07008KT 9999 FEW047/// //TCU 14/05 Q1016

## Analysis and Investigation

### Halton Airfield Operations

A safety investigation was carried out by the Station Flight Safety Officer and the Airfield Operations Team which has been summarised below.

As the C152 got airborne from Halton on RW02, the student pilot saw [another aircraft] cross their path approximately 300ft above, flying near to the crosswind leg. The [other aircraft] was identified as a PA28 by the Halton Flying Instructor. [The C152] was already in a turn crosswind but the instructor chose to level-off to provide vertical separation. The instructor called the traffic to Halton Radio, who had received no call [from the PA28 pilot]. [The C152 pilot] had [EC equipment on-board] but received no alert.

[Speaking with the PA28 pilot after the flight, they] said that they planned the route and carried a moving map and physical chart. They said that their SkyDemon did not “ping” them. However, they were almost 1NM inside the Halton ATZ at the closest. The pilot also claimed that the Halton frequency is not on the printed chart [however this is not the case]. They said that they are familiar with Halton and that it is open 7 days per week but did not call because the frequency is not on the chart.

### UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both of the aircraft had been detected and identified using Mode-S information. The C152 was first detected on the extended centreline for RW02 as it climbed-out of Halton at 1259:02, passing 1100ft. At this point the PA28 was tracking eastwards and was separated from the C152 by 2.3NM horizontally and 900ft vertically (Figure 1).

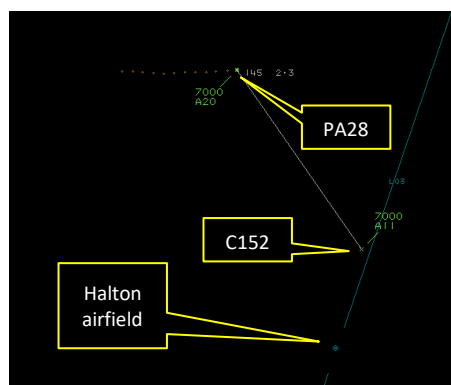


Figure 1 – 1259:02

Both aircraft continued on their respective trajectories until 1259:15, when the PA28 pilot altered course onto a more south-easterly track; at this time the separation was 2NM horizontally and 800ft vertically. Shortly afterwards, the C152 pilot turned on to a climbing crosswind leg whilst the PA28 pilot, maintaining track and 2000ft altitude, entered the ATZ at 1259:58, the upper-limit of which is 2389ft, at which point the separation had decreased to 0.2NM horizontally and 400ft vertically (Figure 2). On the next radar sweep, at 1300:02, the aircraft had started to diverge and so it is assessed that the separation at CPA would have been less than indicated and, as such, it has been recorded as <0.1NM horizontally and 400ft vertically (Figure 3).

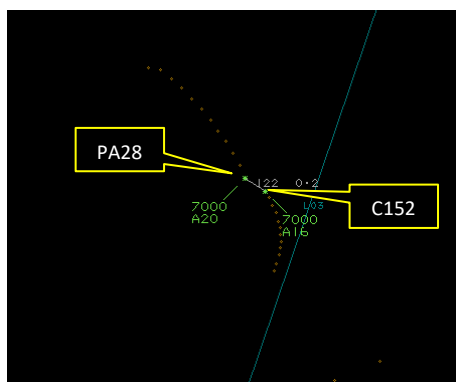


Figure 2 – 1259:58

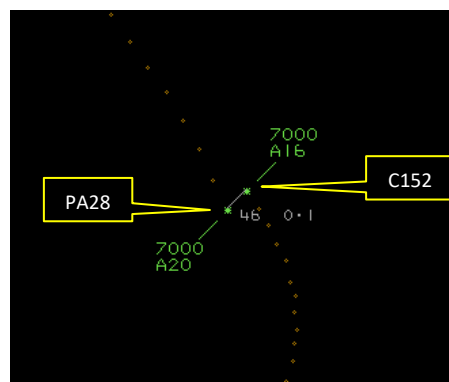


Figure 3 – 1300:02 – CPA

The C152 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.<sup>1</sup> If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.<sup>2</sup> An aircraft must not fly, take off or land within the aerodrome traffic zone of an aerodrome unless the commander of the aircraft has obtained information from the air/ground communication service to enable the flight to be conducted safely within the aerodrome traffic zone.<sup>3</sup>

## Summary

An Airprox was reported when a C152 and a PA28 flew into proximity in the Halton ATZ at 1300Z on Tuesday 19<sup>th</sup> April 2022. Both pilots were operating under VFR in VMC, the C152 pilot in receipt of an Air/Ground Communication Service from Halton Radio. It is not known whether the PA28 pilot had been in receipt of a service.

## PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the C152 pilot, radar photographs/video recordings, a report from the Air/Ground operator 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 considered the actions of the C152 pilot and agreed that they had had no prior awareness of the presence of the PA28 (**CF6**). However, although they had become visual with the PA28 at a stage which had allowed them to take action to maintain separation by stopping their climb, they had still been concerned by the proximity of the PA28 (**CF8**). A GA pilot member stated that, even if EC equipment is being carried, maintaining an effective lookout is of paramount importance with regard to collision avoidance, especially when considering that EC equipment carried by aircraft pilots is not always compatible, as had been the case here (**CF7**). Members had been encouraged that the pilot had reported the event to the ground agency with which they had been in contact without delay.

Next, members discussed the actions of the PA28 pilot and the Board agreed that, although they had been in contact with the UKAB Secretariat, it had been disappointing that they had not submitted a report. Using the information available from the Halton Airfield Operations report, and that gained from transponder data, members went on to agree that the pilot had not contacted the Halton Air/Ground Operator to obtain the required information prior to entering the ATZ (**CF1**, **CF2**, **CF3**), despite the required frequency being printed on the VFR chart (**CF4**, **CF5**). However, members agreed that, as the PA28 pilot had been aware of Halton airfield, they would have had generic awareness of the likely presence of other aircraft (**CF6**).

<sup>1</sup> (UK) SERA.3205 Proximity.

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

<sup>3</sup> The Rules of the Air Regulations 2015, Section 3, Article 11(5).

The Board then considered the actions of the Air/Ground Operator and acknowledged that they are only able to pass information on to pilots and that, as the PA28 pilot had not made contact with them, there had been none available.

Finally, the Board considered the risk involved in this Airprox. Members again expressed their disappointment that the PA28 pilot had not submitted a report however members agreed that there had been sufficient information available to allocate a risk category to this event. The Board concluded that, although they had not had any prior awareness of the PA28, the C152 pilot had become visual with it early enough to enable them to take action to ensure separation and, although safety had been degraded, members were satisfied that there had been no risk of collision. Consequently, the Board assigned a Risk Category C to this event.

## **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

### Contributory Factors:

2022055				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Flight Elements</b>				
<b>• Regulations, Processes, Procedures and Compliance</b>				
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
<b>• Tactical Planning and Execution</b>				
2	Human Factors	• Airspace Infringement	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace.	E.g. ATZ or Controlled Airspace
3	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
4	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
5	Human Factors	• Monitoring of Communications	Events involving flight crew that did not appropriately monitor communications	
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
<b>• Electronic Warning System Operation and Compliance</b>				
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
<b>• See and Avoid</b>				
8	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: C

### Safety Barrier Assessment<sup>4</sup>

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

### **Ground Elements:**

<sup>4</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

**Situational Awareness of the Confliction and Action** were assessed as **not used** because the C152 pilot was operating with an Air Ground Communications Service and, as such, the Air/Ground Operator can only pass information to pilots.

**Flight Elements:**

**Regulations, Processes, Procedures and Compliance** were assessed as **ineffective** because the PA28 pilot had not requested the required information from the Air/Ground Operator prior to entering the ATZ.

**Tactical Planning and Execution** was assessed as **ineffective** because the PA28 pilot had not been aware that the Halton Radio frequency had been available on their chart and they had not requested the required information from the Air/Ground Operator prior to entering the ATZ.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because the C152 pilot had had no prior awareness of the presence of the PA28 and the PA28 pilot had had only generic awareness that there may have been aircraft operating at Halton.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because the EC device carried by the C152 pilot had not been compatible with the equipment carried on the PA28.

