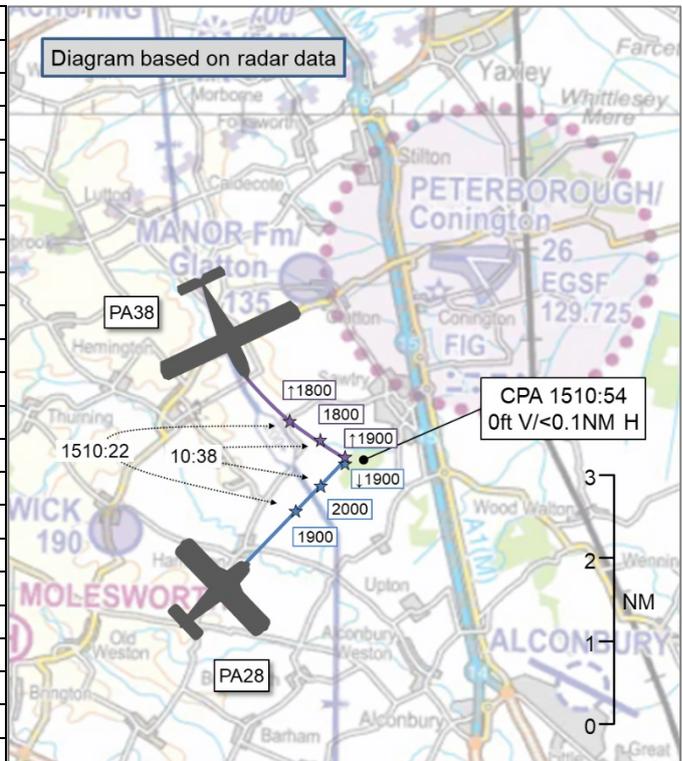


AIRPROX REPORT No 2022163

Date: 07 Aug 2022 Time: 1510Z Position: 5225N 00017W Location: 2NM SW Conington

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	PA38
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	None
Provider	Conington	
Altitude/FL	FL016	FL016
Transponder	A, C, S	A, C, S
Reported		
Colours	Blue, White	White, Blue
Lighting	None	Strobe, Nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2700ft	2150ft
Altimeter	QFE (1025hPa)	QNH
Heading	035°	110°
Speed	95kt	80kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	0ft V/30-60m H	0ft V/ NK H
Recorded	0ft V/<0.1NM H	



THE PA28 PILOT reports that they were discussing and preparing for the overhead join at Conington with their student as they were closing in to the ATZ. Due to the exercise, they were focusing on Conington which was just off to the right of the nose of the aircraft. Despite keeping a continuous scan, they were not able to spot [PA38 C/S]. Suddenly, they experienced [PA38 C/S] fly past them less than 100m from their aircraft. As it was passing from left-to-right in front of them, they were not able to break right, but instead increased their rate of descent to increase the distance between the two aircraft.

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

THE PA38 PILOT reports that they were flying in the left-hand seat. They had departed Conington's downwind leg, keeping within the circuit pattern and published procedures and then climbed to 2150ft on Conington QNH, with the intention of making an initial call to London Information. They told Conington that they were departing their zone and contacting London Information. They were maintaining their level and a good lookout while making their initial call, which was along the lines of 'London Information [C/S] request Basic Service'. At this point, while doing their lookout scans, they had gone from left over their left shoulder, zigzagging in a clockwise direction and then caught a glimpse of the other aircraft. At this point it was too late for them to take any avoiding procedure, as the aircraft was over their right-hand shoulder and by the time they had turned back forward, the collision would have happened if the other aircraft hadn't taken corrective action. If the aircraft had been coming head-on, or from an angle which didn't require such body movement, they may have seen it in time to be able to take avoiding action. They then told London Information to standby and that they were going to go back to Conington. On returning to the Conington frequency, they asked on the radio if anyone had had a near collision, nobody answered, so the AGO said they would have a look on FlightRadar to get a registration for them to file an Airprox. The aircraft involved then came forward with their details. They then switched back to London to continue with their flight.

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

THE LONDON INFORMATION FISO reports that the PA38 pilot contacted them at 1510 after departure from Conington, then immediately stated that they were returning to the Conington frequency. They were informed two weeks later about the Airprox, but could not recall the event.

Factual Background

The weather at Wittering was recorded as follows:

METAR EGXT 071450Z AUTO 27009KT 9999 NCD 25/07 Q1024=

Analysis and Investigation

NATS ATSI Investigation

The UKAB requested information on a pilot reported Airprox in which [PA38 C/S] was established on the London Flight Information (LFIS) frequency. RT and radar analysis displayed that [PA38 C/S] was within the vicinity of [PA28 C/S] when initial contact with LFIS was made. The pilot of [PA38 C/S] immediately returned to the Conington frequency without establishing a Basic Service on LFIS.

Information available to the investigation included:

- CA4114 from the LAC London Information FISO (LFISO).
- Airprox report from the pilot of [PA38 C/S].
- Radar and R/T recordings.

The pilot of [PA38 C/S] contacted the LFIS frequency at 1510:40 (all times UTC). The LFISO requested the flight details from the pilot, however the transmission was not initially responded to, with the pilot of [PA38 C/S] stating at 1511:03 that they were temporarily returning to Conington frequency. This was acknowledged by the LFISO.

Figure 1 displays the point at which the pilot of [PA38 C/S] initially contacted LFIS (annotated radar screenshot). Radar subsequently displayed the closest point of approach between [PA28 C/S] and [PA38 C/S] at 1510:54 (see Figure 2).



Figure 1



Figure 2 Closest point of approach.

The pilot of [PA38 C/S] subsequently contacted the LFIS frequency again at 1513:15 but did not report a confliction with another aircraft on the frequency. The pilot requested a Traffic Service but was informed only a Basic Service was available on the LFIS frequency.

The Airprox occurred when the pilot of [PA38 C/S] initially contacted London Information, but subsequently reported they were temporarily returning to their previous frequency of Conington. The closest point of approach occurred at 1510:54 and was recorded on Multi-Track Radar as 0.0NM and 0ft.

According to the pilot of [PA38 C/S] Airprox report the incident was resolved by the pilot of the PA28 taking 'corrective action.' The Airprox report stated that the pilot of [PA38 C/S] was unable to react to the 'aircraft at this point it was too late for me to do any avoiding procedure as the aircraft was over my right hand shoulder and by the time I had turned back forward the collision would have happened.'

UKAB Secretariat

The PA28 and PA38 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 PA38 pilot was required to give way to the PA28.²

Summary

An Airprox was reported when a PA28 and a PA38 flew into proximity 2NM southwest of Conington at 1510Z on Sunday 7th August 2022. Both pilots were operating under VFR in VMC, the PA28 pilot was in receipt of an AGCS from Conington and the PA38 pilot was not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the London FISO. 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 PA28 pilot. They had been approaching Conington for an overhead join and members noted that the pilot had reported being at a higher altitude than they were actually indicating on the radar. They opined that, when approaching an airfield for an overhead join, pilots should be mindful of departing aircraft and they wondered whether, with the high pressure on the day, the PA28 pilot had thought that they were well above the circuit as they approached the overhead. It appeared to the Board that the PA28 pilot had not heard the PA38 call that they were departing the circuit, whether the call had been made before they joined the frequency was not known because the RT at Conington was not recorded but, whatever the reason, the pilot had had no prior situational awareness about the PA38 (**CF3**). Some members thought that, because overhead joining procedures required a lot of instructional 'chat', it was possible that the instructor had become focused on the student setting up the overhead join to the detriment of lookout (**CF4**). Whilst the PA38 would have been on a constant relative bearing to the PA28, and therefore difficult to see, nevertheless it highlighted the need to ensure that lookout was robust enough to cover all areas. The Board agreed that, by the time the PA28 pilot had seen the PA38, their only option had been to descend (**CF5**).

For their part, the PA38 pilot had been departing the circuit and had climbed above the circuit altitude. Members thought that the pilot should have remained on the Conington frequency for longer, enough time to ensure that they had been well clear of any joining traffic before changing to London Information, particularly because London Information could not offer a radar service and so Traffic Information on anything approaching Conington to join was unlikely to be forthcoming (**CF1, CF2**). Members considered that, in changing frequency, they had denied themselves the opportunity to hear the PA28 pilot call to join through the overhead and so had not had any situational awareness that it had been approaching (**CF3**). Although the PA38 pilot had been outside the ATZ when they had climbed to 2000ft, still members thought that the proximity to Conington at this altitude was always going to put them in the path of traffic joining for an overhead join, and urged pilots to consider remaining below the overhead join height when departing downwind. Again the PA28 had been on a constant relative bearing to the PA38 and so difficult to see, and although the pilot had described conducting a thorough lookout, they had been looking in the opposite direction when the PA28 had become closer and had only seen it as

¹ (UK) SERA.3205 Proximity.

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

it had crossed ahead, and too late to take any action, making this effectively a non-sighting by the PA38 pilot (CF6).

Members noted that neither aircraft was fitted with any additional electronic conspicuity equipment, which on this occasion may have provided some additional information to aid visual acquisition. It was for pilots to decide on their own requirements for additional equipment according to their needs and the Board wished to highlight to pilots that additional funding has been made available for electronic conspicuity devices through the CAA's Electronic Conspicuity Rebate Scheme, which has been extended until 31st March 2023.³

Members briefly discussed the role that the ATSU's had to play. Conington operated with an AGO only who was not required to sequence or separate aircraft in any way. Members were told that the AGO at Conington was not situated in a traditional tower, but was in an office and so would be unlikely to be able to offer any information to either pilot, although members were not able to confirm this information because a report was not received from the Conington AGO. Furthermore, the FISO at London Information operates without a radar and, although they provide a Basic Service, can only give Traffic Information based upon known information from other pilots. However, in this case the PA38 pilot had only just called the FISO and was not receiving any type of service anyway.

When assessing the risk, members considered the reports from both pilots and the radar replay and NATS report. They noted that the separation between the two aircraft had been at a bare minimum and that the incident was described by both pilots as a last minute sighting with little time to react. Although the PA28 pilot reported descending, members thought that this had not been early enough to materially affect the separation and that providence had played a major part in the event. Risk Category A (CF7).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2022163				
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
2	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
• 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
• See and Avoid				
4	Human Factors	• Distraction - Job Related	Events where flight crew are distracted for job related reasons	
5	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
6	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
• Outcome Events				
7	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: A.

³ <https://www.caa.co.uk/general-aviation/aircraft-ownership-and-maintenance/electronic-conspicuity-devices/>

Safety Barrier Assessment⁴

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 **ineffective** because the PA38 pilot could have remained on the Conington frequency for longer to allow them to hear joining aircraft.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any prior situational awareness that the other was there.

See and Avoid were assessed as **ineffective** because although the PA28 pilot managed to take late avoiding action by increasing their rate of descent, separation was judged to be at the bare minimum.

Airprox Barrier Assessment: 2022163		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								

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