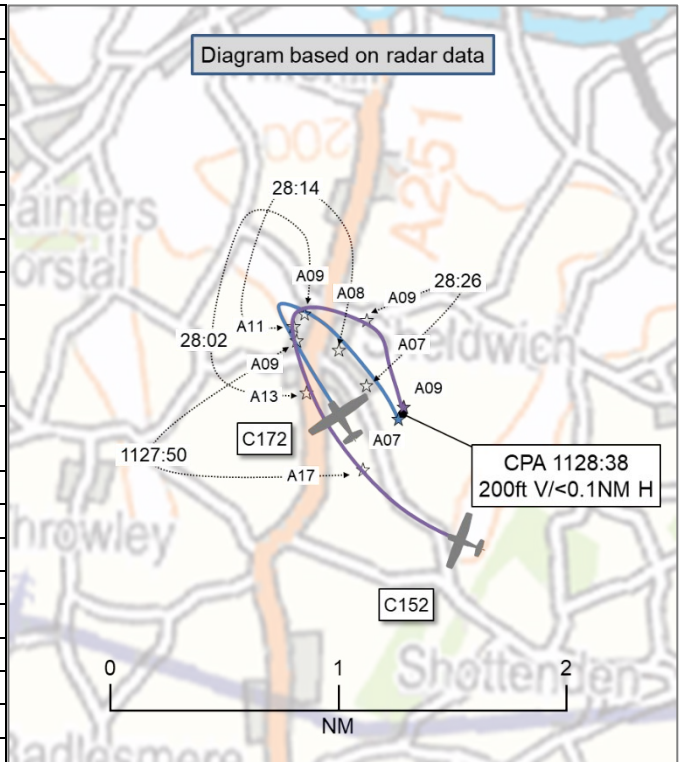


AIRPROX REPORT No 2024082

Date: 07 May 2024 Time: 1129Z Position: 5116N 00053E Location: Sheldwich

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	C152
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Southend	Rochester
Altitude/FL	700ft	900ft
Transponder	A, C, S+	A, C, S+
Reported		
Colours	White/maroon/gold	White/red
Lighting	'off'	Nav, strobes, beacon
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	800ft	1000ft
Altimeter	QNH (1012hPa)	NR
Heading	'orbiting'	NR
Speed	~95kt	NR
ACAS/TAS	SkyEcho	TAS
Alert	'TA'	TA
Separation at CPA		
Reported	50ft V/0m H	100ft V/152m H
Recorded	200ft V/<0.1NM H	



THE C172 PILOT reports conducting air-to-ground photography. They were flying and two other pilots were in the co-pilot seat and a rear seat, to take the pictures. Before leaving they had spoken to the duty AFISO to tell them what they would be doing, and they had mentioned that there was another aircraft in the same area on an aerobatic detail. Once they arrived in the area, they could see the other aircraft [whose callsign they were aware of] on their TAS display. It was well away from them and at heights of about 4000ft. There was no conflict so they continued to make long orbits whilst their companions took pictures. They were at minimum height and aware of observing the 500-foot rule. At 1128Z they were alerted by their TAS display that they had an aircraft descending directly above them by 200ft, which remained above and followed them round the orbit, at one stage coming within 100ft. Instinctively, they may have descended slightly for self-preservation. They could not descend any further nor could they climb for fear of collision so, after the other aircraft made a complete orbit with them, they turned away and could then see a Cessna 152. Having had a red image on the TAS display directly above them and with only 100ft clearance was unsettling to say the least, particularly as they didn't know the other pilot's intentions, so they flew away whilst they recovered. There had been no radio contact as they were squawking 5050 and had a listening watch with Southend LARS. Because their aircraft is high-wing they had been completely unsighted [on the C152] and if it were not for the ADS-B would never have known and could easily have climbed or turned into them.

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

THE C152 PILOT reports they were the instructor, conducting an advanced training course with a highly experienced PPL-qualified pilot. On the way back to [base] the handling pilot [saw the aircraft belonging to] a fellow owner/pilot (who they both knew). They informed the instructor they intended to give the fellow pilot a wing rock as a polite hello before returning to base. The instructor felt this was not unusual between fellow pilots based at the same airfield and monitored the flightpath. They flew the aircraft in a

rate one turn to the right, now heading east to position on the left-hand side of the C172, and gave a gentle rock of the wings. Minimum separation of at least 150m was maintained laterally and the C172 pilot appeared to acknowledge this by lifting their wing two or three times. The C172 then accelerated and made a sharp turn to the left in front of them (again separation was maintained laterally). Due to the course deviation from the C172, the handling pilot made a gentle right turn heading west. The instructor felt that at no point was separation an issue, due to the lateral distance maintained, nor any danger caused by either the handling pilot's actions or indeed the C172 pilot's, of which they felt was an attempt to reduce separation. They believed the C172 pilot was fully aware of their presence due to the aid of ASD-B within both aircraft, that their intentions were legal and found the Airprox report a surprise and unnecessary. As a professional pilot, they were aware of the requirements for separation, unless previously briefed to conduct formation flight (which they did not feel this was), and felt that separation was maintained throughout, with the intention of making a polite and friendly hello before both returned to their base airfield.

The pilot assessed the risk of collision as 'None'.

THE ROCHESTER AFISO did not submit the requested report.

Factual Background

The weather at Southend was recorded as follows:

METAR EGMC 071150Z 04006KT 340V070 9999 FEW025 18/09 Q1022=

METAR EGMC 071120Z 06008KT 010V090 9999 FEW020 18/08 Q1022=

Analysis and Investigation

UKAB Secretariat

The C172 and C152 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 Aircraft shall not be flown in formation except by pre-arrangement among the pilots-in-command of the aircraft taking part in the flight [...].²

Summary

An Airprox was reported when a C172 and a C152 flew into proximity near Sheldwich at 1129Z on Tuesday 7th May 2024. Both pilots were operating under VFR in VMC, the C172 pilot listening out on the Southend LARS frequency and the C152 pilot in receipt of a Basic Service from Rochester.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and GPS data. 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.

Board members first considered the pilots' actions and agreed that flight into proximity with another aircraft should only be undertaken on a mutual basis and was best arranged with a thorough brief on the ground, before flight. The Board agreed that the C152 pilot had not sought out the C172 pilot before flight to accomplish such a brief (**CF3**) and had subsequently flown into proximity with the C172 (**CF2**). The Board also agreed that whether or not the proximity of flight could be considered as formation flight, the C152 pilot had flown close enough to the C172 to cause its pilot concern (**CF7**) because it had caused their TAS to alert (**CF6**). The C172 pilot had been concerned by the proximity of the C152 due to their TAS alert and indicated vertical separation (**CF5**) and had manoeuvred in an attempt to obtain greater separation. The situation had not been helped by the fact that the C172 pilot had had no

¹ (UK) SERA.3205 Proximity.

² (UK) SERA.3135 Formation flights.

situational awareness of the approaching C152 (**CF4**) and that neither pilot had chosen to operate with a FIS that could have assisted their situational awareness (**CF1**). Although the C172 pilot had not seen the C152 before CPA (**CF8**), due no doubt to it being obscured above and behind them (**CF9**), the C152 pilot had been visual with the C172 throughout and the Board members therefore agreed that any risk of collision had been averted, Risk C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2024082				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Situational Awareness and Action				
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
Flight Elements				
• 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	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
• Situational Awareness of the Conflicting Aircraft and Action				
4	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
5	Human Factors	• Unnecessary Action	Events involving flight crew performing an action that was not required	Pilot was concerned by the proximity of the other aircraft
• Electronic Warning System Operation and Compliance				
6	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	
• See and Avoid				
7	Human Factors	• Lack of Individual Risk Perception	Events involving flight crew not fully appreciating the risk of a particular course of action	Pilot flew close enough to cause concern
8	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
9	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other

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 Conflication and Action were assessed as **not used** because neither the Rochester AFISO nor the Southend LARS controller had been required to maintain situational awareness of the aircrafts' positions.

Flight Elements:

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

Tactical Planning and Execution was assessed as **partially effective** because the C152 pilot had not pre-arranged a rendezvous with the C172 pilot and had flown into proximity with it.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the C172 pilot had not been aware of the C152 pilot's intentions and had been concerned by their proximity.

Airprox Barrier Assessment: 2024082		Outside Controlled Airspace					
Barrier	Provision	Application	Effectiveness				
			Barrier Weighting				
			0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓	[Green bar to 5%]			
	Manning & Equipment	✓	✓	[Green bar to 3%]			
	Situational Awareness of the Confliction & Action	✗	○	[Red box from 0% to 15%]			
	Electronic Warning System Operation and Compliance	●	●	[Grey bar to 2%]			
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓	[Green bar to 10%]			
	Tactical Planning and Execution	✓	⚠	[Yellow bar to 10%]			
	Situational Awareness of the Conflicting Aircraft & Action	⚠	✓	[Yellow bar to 20%]			
	Electronic Warning System Operation and Compliance	✓	✓	[Green bar to 15%]			
	See & Avoid	✓	✓	[Green bar to 20%]			
Key:							
	Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	●			
Application	✓	⚠	✗	●	○		
Effectiveness	■	■	■	■	□		