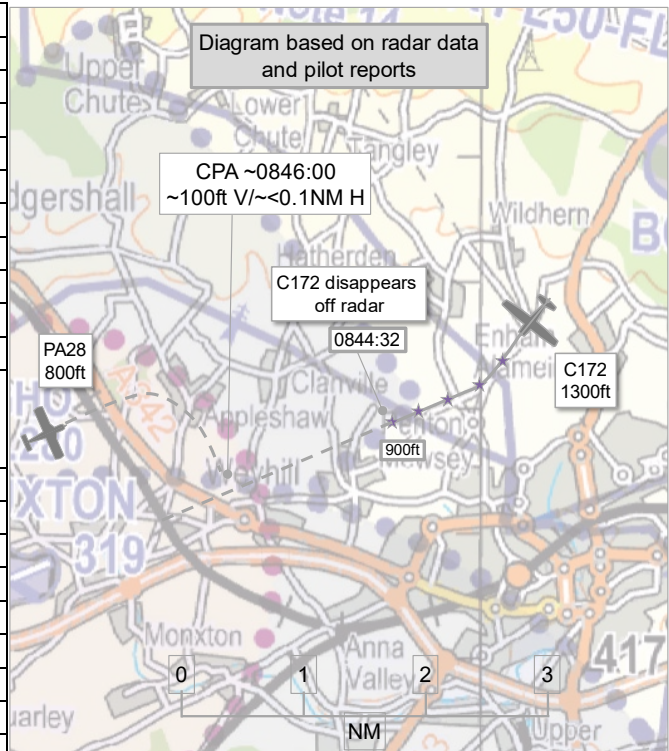


AIRPROX REPORT No 2023158

Date: 21 Jul 2023 Time: ~0846Z Position: 5113N00134W Location: IVO Thruxton Aerodrome

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	C172
Operator	Civ FW	Civ FW
Airspace	Thruxton ATZ	Thruxton ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Thruxton	Thruxton
Altitude/FL	<800ft	<900ft
Transponder	None	A, C, S
Reported		
Colours	White/Blue	White with Red, Blue and Gold stripes
Lighting	Nav, Landing	Landing, Beacon
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	700ft	600ft
Altimeter	QFE (1004hPa)	QFE
Heading	160°	250°
Speed	75kt	70kt
ACAS/TAS	Not fitted	Not fitted
Alert	N/A	N/A
Separation at CPA		
Reported	50ft V/400ft H	100ft V/1NM H
Recorded	Not recorded	



THE PA28 PILOT reports that, whilst they had been on the downwind leg, the C172 pilot called-in for a 5NM long final onto RW25 at [...]. Thruxton Radio responded with 1 in the circuit and the C172 pilot had said they would avoid the traffic. The PA28 pilot had slowed the plane to 75kts on the downwind leg to give more time for separation and extended the downwind leg. Shortly after turning onto base leg, the C172 appeared directly ahead at the same altitude passing from left-to-right at the closest distance of 400ft [they judged]. The C172 pilot then radioed 'I'm ahead' and proceeded on a short final. The PA28 pilot turned onto heading 250° and had then been directly behind the C172 and called for a go-around, passing overhead at 500ft as the C172 had touched down. After completing the sortie, their instructor (who had been watching from the tower) confirmed that they had acted in a safe and proper manner and that they should have had priority over the C172 with them conducting a safe join. A straight-in approach is not the standard join but is allowed when the circuit is free of traffic.

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

THE C172 PILOT reports that, on approach to [destination airfield] and [on changing from] the Boscombe Zone Frequency, the pilot had made contact with Thruxton Radio and requested airfield information and stated a preference for a straight in approach to RW25. They were advised that there had been one aircraft in the circuit and that they had been able to continue with a straight-in approach and that if necessary they should give way to circuit traffic. They continued their approach and recalled having heard the PA28 pilot calling downwind as they approached 2NM from the threshold. They continued to look for the PA28 in the circuit as they continued their approach, they had made visual contact as the PA28 approached the end of the downwind leg which they relayed to the A/G operator. They continued their approach and recalled having seen the PA28 turning onto base leg and at this stage they had been well in front and then at 1NM from the threshold. They announced that they had been visual with the aircraft on base leg and as they had been well ahead in the circuit they continued

the approach. They continued to make a landing and recall the other aircraft announce they had been going around. On landing they had been advised that the other traffic had been a student pilot performing solo circuits and they should have possibly considered giving way earlier in the approach and to have abandoned the straight-in approach, which the pilot acknowledged.

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

THE THRUXTON A/G OPERATOR reports that they had been the Duty Aerodrome Operations manager on the 21st of July 2023. The runway in use had been RW25. At the time of the report there had been one fixed-wing aircraft in the right-hand circuit, the PA28, with a solo student pilot doing a session of circuit flying. At approximately 0840 an inbound aircraft, the C172, had called to join and had been passed the airfield information, RW in use, circuit direction, QFE and traffic in the circuit. Because of the time elapsed between the incident and the AGO submitting their report, they cannot recall exactly what had been said over the R/T.

The AGO recalls the C172 having joined straight-in for RW25 and having passed in front of the student pilot who had been on base leg. The student pilot in the PA28 elected to go around from their approach. The AGO states that they cannot be sure of any further radio conversations having taken place between themselves and the pilot of the C172 who continued their approach and then landed at 0848. The PA28 student pilot went around and had carried on with their circuit detail. The instructor of the student had been present in the tower and had spoken with the C172 pilot and asked them to come up to the tower to speak with the AGO. The AGO spoke to the pilot and advised them of the more correct join at Thruxton for RW25 when there was traffic in the circuit. The C172 pilot apologised and could see the action they should have taken - which was to have joined through the overhead giving way to circuit traffic.

Factual Background

The weather at Boscombe Down was recorded as follows:

METAR EGDM 210820Z 31004KT CAVOK 16/10 Q1014 NOSIG RMK BLU BLU=

Analysis and Investigation

UKAB Secretariat

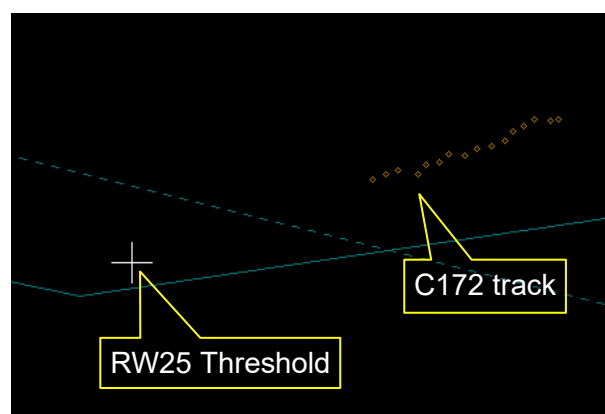


Figure 1: Snapshot at the point the C172 disappears from radar.
The PA28 was not seen on radar.

The PA28 and C172 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 C172 pilot was required to give way to the PA28.² An aircraft

¹ UK Reg (EU) SERA.3205 Proximity..

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

operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation.³

Summary

An Airprox was reported when a PA28 and a C172 flew into proximity at Thruxton airfield at around 0846Z on Friday 21st July 2023. Both pilots were operating under VFR in VMC and both pilots were in receipt of an Air/Ground Communications Service from Thruxton Radio.

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 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 considered the actions of the PA28 pilot, noting their student pilot status and corresponding lack of experience. Members recognised that the PA28 pilot on hearing the C172 pilot's call for 'straight-in' would have needed to apply decision-making priorities potentially beyond their experience level. The PA28 pilot reports having reduced speed and extending downwind to generate separation – thereby implying priority had sat with the C172. However, those adjustments had been minor and had probably made little difference to the proximity of the 2 aircraft at their closest point. As neither the PA28 nor the C172 had carried electronic conspicuity equipment, and Thruxton operates as an AGCS, members agreed that situational awareness had been restricted to that gained via radio calls and the student's inexperience may have contributed to their reluctance to have asked for position updates (**CF4**) via the radio, leading to a late sighting of the C172 (**CF6**) and their corresponding concern over its proximity (**CF8**). However, members felt that the student pilot had made the correct judgement in electing to go-around. Board members reiterated their view that instructional aircraft should be equipped as highly as possible – to include transponders and electronic conspicuity units – to enable provision of more detailed air traffic services and greater awareness for all those operating in the same area.

Members went on to discuss the role of the C172 pilot, acknowledging their desire for a straight-in approach and the potential for their misunderstanding as to that procedure due to differences in the way such approaches are described in the UK AIP and entry for Thruxton in the UK AIP and the details published on the Thruxton web page (**CF1**). Members felt that the C172 pilot had fully understood the need to cede to the aircraft already in the pattern but, having achieved visual contact with the PA28, had not in fact conformed with that traffic pattern (**CF3**), judging themselves to be sufficiently separated and clearly ahead. They had carried on for their planned landing (**CF2**), leading the student pilot of the PA28 to be have been concerned by the proximity of the C172 (**CF7**) and with no option but to go-around. Board members opined that, although the PA28 pilot had been a student, the lack of clarity in radio calls as to that status may have made the C172's C172 pilot's decision-making to be balanced towards equal experience levels when considering the relative positions of the 2 aircraft in the circuit.

In considering the role of the Thruxton AGO, members recognised the limitations of an AGCS and the limited privileges of a ROCC, but felt that more could have been done to alert the C172 pilot to the student status of the PA28 pilot and, potentially, have advised the C172 pilot that overhead joins are preferred when the visual circuit is occupied. As a non-surveillance-based service, situational awareness development for both the AGO and the pilots had been limited to the frequency and accuracy of radio calls. Although the Board agreed that the AGO had acted in accordance with the privileges of their licence and had passed-on all the information they had received from the pilots involved, members also felt that this had clearly not been enough to provide both pilots with a sufficient awareness of the situation (**CF5**). The Board wished to highlight to all pilots that, at aerodromes providing an AGCS only, the generation of situational awareness for all concerned is entirely reliant on accurate and regular position calls from the pilots.

³ UK Reg (EU) SERA.3225 Operation on and in the Vicinity of an Aerodrome..

When determining the risk, members considered the reports from both pilots together with the report from the AGO involved and radar photographs/video recordings. They agreed that although the PA28 pilot had been concerned by the proximity of the C172, the C172 pilot had attained visual contact as the PA28 had been downwind, relaying that information to the AGO, and there had therefore been no risk of collision and members assigned Risk Category C to this Airprox.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2023158				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Organisational	• Flight Operations Documentation and Publications	Flight Operations Documentation and Publications	Inadequate regulations or procedures
• 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	• 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				
4	Human Factors	• Lack of Communication	Events involving flight crew that did not communicate enough - not enough communication	Pilot did not request additional information
5	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				
6	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
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	• 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.

Recommendation: The Thruxton airfield operator reviews their website and UK AIP entries to ensure coherence.

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:

Ground Elements:

Situational Awareness of the Conflication and Action were assessed as **not used** because the Thruxton AGO was not permitted to sequence traffic in the circuit.

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

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the instructions for straight-in approaches to Thruxton are ambiguous and the details on the Thruxton website do not match those in the UK AIP.

Tactical Planning and Execution was assessed as **ineffective** because the C172 pilot did not conform with the pattern of traffic as formed by the PA28 in the Thruxton circuit.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because both the PA28 and C172 pilots had only generic Situational Awareness of the other's position in the circuit.

Airprox Barrier Assessment: 2023158		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 2.5%]				
	Situational Awareness of the Conflicting & Action	✓	○	[Red box from 0% to 15%]				
	Electronic Warning System Operation and Compliance	●	●	[Grey bar to 2.5%]				
Flight Element	Regulations, Processes, Procedures and Compliance	⚠	✓	[Yellow bar to 10%]				
	Tactical Planning and Execution	✓	✗	[Red bar to 10%]				
	Situational Awareness of the Conflicting Aircraft & Action	⚠	✓	[Yellow bar to 20%]				
	Electronic Warning System Operation and Compliance	●	●	[Grey bar to 15%]				
	See & Avoid	✓	✓	[Green bar to 20%]				
Key:		Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	●				
Application	✓	⚠	✗	●		○		
Effectiveness	[Green]	[Yellow]	[Red]	[Grey]		[Red Box]		