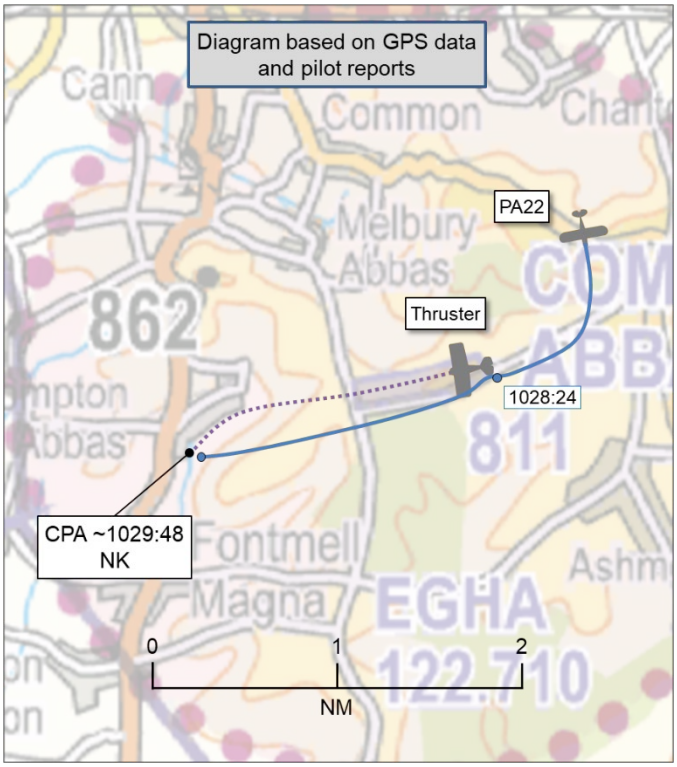
AIRPROX REPORT No 2024214

Date: 17 Aug 2024 Time: ~1030Z Position: 5058N 00211W Location: Compton Abbas

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA22	Thruster
Operator	Civ FW	Civ FW
Airspace	Compton Abbas ATZ	Compton Abbas ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Compton Radio	Compton Radio
Altitude/FL	1450ft	NK
Transponder	None[1]	Not fitted
Reported		
Colours	White/red	Yellow/blue
Lighting	None	Strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1200ft	2000ft
Altimeter	QNH (1017hPa)	QNH (1017hPa)
Heading	260°	210°
Speed	60kt	60kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	100ft V/0m H	Not seen
Recorded	NK	



THE PA22 PILOT reports that they were conducting a training flight doing circuits and were forced to make an evasive manoeuvre to avoid a mid-air collision. Their flight commenced at approximately 1000 with a plan to conduct circuits. They were using RW26 right-hand on a weekend when the downwind join procedure and a sterile deadside were active. The weather was bright and clear with few clouds - CAVOK. There was a northwesterly wind of approximately 5-10kts. The runway surface was dry and the grass recently mown. [They described the airfield as being very busy].

The circuits were flown at 1800ft on the QNH, the aerodrome altitude being 811ft AMSL. They had completed two 'touch and go' circuits without incident. Downwind and final calls were made on every circuit. On the third circuit, they made a downwind call and multiple calls for airfield information were heard from resident aircraft. They anticipated that several aircraft would therefore likely be lining up to depart when they were coming around to land. As they turned for base leg, they heard an aircraft lining up, closely followed by another. They turned on to final and made their call, as a third aircraft also lined up, and they could see [the Thruster] queued behind this one at the hold. The third aircraft expedited their departure but, as soon as they started rolling, the [Thruster] entered the runway. The radio operator (Air/ground) made a comment, something to the effect of *'are you aware of the plane on final'*, to which the pilot of [the Thruster] responded, *'yes'*.

They were aware of the flight characteristics of [the Thruster] and they considered that, although the aircraft could possibly expedite and get off the ground in time for them to land, it was unlikely, so they made a decision to go around. They made a radio call to this effect and instructed their student to head towards the trees to the south of the clubhouse (deadside) and to start climbing. They flew parallel to the runway and began to climb. They ensured that they remained visual with [the Thruster] and observed it take off and climb up, such that they were almost at the same height. They did not want to drop down too low as the high wings of [the PA22] would have obscured their view of [the Thruster] and they felt it best to remain in a position where they could both see one another. They declared their

[1] Pilot reported Modes A, C although the aircraft was not visible on radar.

position as 'deadside, over the trees', conscious of [current] rules. They did not want to move fully deadside to climb back to circuit height as they were conscious that it was designated sterile. They anticipated that [the Thruster] would make a turn to the right, at the end of the runway, as per circuit procedure for noise abatement, at which point they would be able to make a turn crosswind and rejoin the circuit behind it, with no other traffic having taken off behind them. However, it continued straight on beyond the road to the west of the airfield (still within the ATZ) and then made a turn to the south, contrary to circuit procedure, on a course directly towards them and the deadside. They were at approximately 1300ft on the QNH at this point. They recognised that they needed to take immediate action to avoid a mid-air collision so took control of [the aircraft] and pushed the control column firmly forward causing it to rapidly descend 100ft. They were now no longer visual with [the Thruster], so called up and asked if [the Thruster pilot] was visual with them, which they declared they were and that [the PA22] was well below.

The pilot of [the Thruster] later spoke to them about the incident and apologised for entering the runway when they were on final, stating that they were in a queue of about 5 aircraft and that [the Thruster's] engine was overheating, so needed to get in the air. They asked if [the pilot] was aware that they had turned into them and if they had heard their deadside call. They seemed unaware of either but commented that [the PA22] should not have been deadside.

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

THE THRUSTER PILOT reports that at the time of [the Airprox] RW26 was in use. The weather was clear and wind was light westerly. The airfield was very busy and there were aircraft carrying out circuit training. They had taxied to the start of RW26 behind 5 aircraft. They waited about 10min while other aircraft were taking off. During the wait their engine began to indicate overheating. When the runway was clear for them to line up they noticed an aircraft on right base. Their view on the final approach was obscured by the other aircraft waiting to take off. As they lined up for take-off they heard on R/T an aircraft calling final. They immediately applied full power and after a ground run of less than 200 metres they were airborne and climbing at about 600-700ft/min. Aware another aircraft was behind them, having called *"going around"*, they decided it would be prudent to leave the circuit as soon as possible as the aircraft was likely to be travelling faster than them. At no time did they see the aircraft behind them. After crossing the airfield boundary to the west and at about 2000ft (QNH) they made a climbing turn to the left on a heading of approximately 210°.

THE COMPTON AIR/GROUND OPERATOR reports that [the PA22] was in the circuit and had reported base leg and maybe final, when the Thruster entered the active RW26 and commenced a slow take-off.

[The PA22 pilot] announced that they were going around and did so on the left-hand side of the runway, on the southern side of the runway.

[The Thruster] continued its take off but did not turn right after departure, for noise abatement, but continued straight ahead before turning left towards the south.

They had no recollection of events, concerning the incident, after this.

Factual Background

The weather at Bournemouth was recorded as follows:

```
METAR EGHH 171020Z 34008KT 260V020 9999 FEW038 19/10 Q1015
```

The NOTAM for Compton Abbas was as follows:

```
(L4676/24 NOTAMN

Q) EGTT/QFAXX/IV/NBO/A /000/999/5058N00209W005
A) EGHA B) 2408170800 C) 2408181600
```

D) 0800-1600
E) CHANGE TO TFC PATTERN AND JOINING PROCEDURES DUE SPITFIRE OPR AT AD AND WI COMPTON ABBAS ATZ
1. NO OVERHEAD OR DEAD SIDE JOINS PERMITTED
2. ACT MUST JOIN AT START OF DOWNWIND LEG TO THE NORTH OF THE AD FOR THE APPROPRIATE RWY THAT IS NOTIFIED BY COMPTON RADIO
FURTHER INFO AVBL VIA WEBSITE.... (details)

The Non-Standard Operating Procedures for Compton Abbas on the day were as follows:

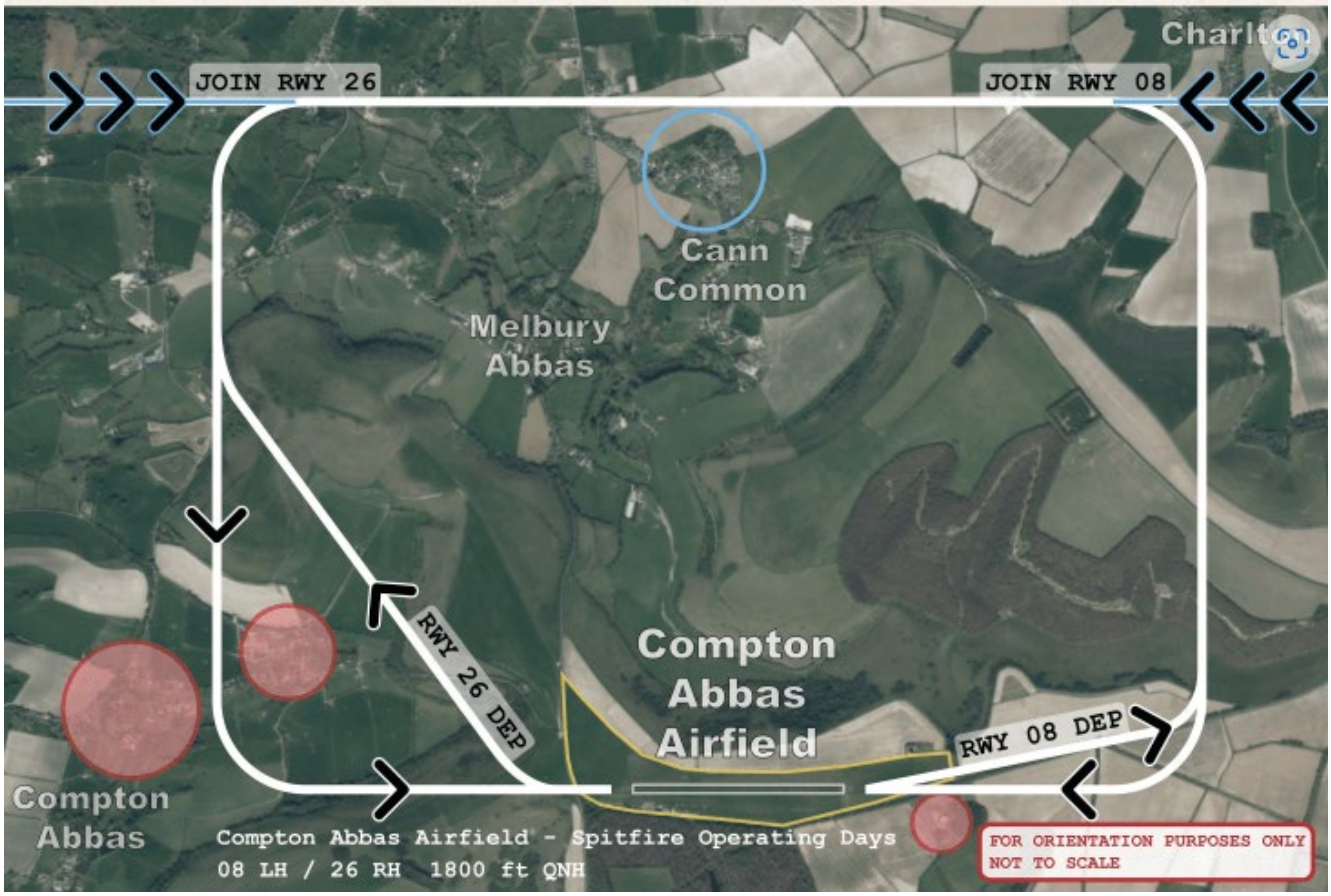


Figure 1 – Compton Abbas circuit procedures relevant to the day.

"During NOTAMd days of Spitfire Operations, the standard overhead join and deadside will not be in use. A downwind join must be used instead. This is to ensure these areas are kept sterile exclusively for the Spitfire.

Please plan your airfield arrival to join on 'extended downwind', at the circuit altitude of 1800' QNH, as shown by blue arrows in the diagram above.

The downwind leg is flown as usual, please keep the aircraft to the North of 'Cann Common', marked with a blue circle on the diagram.

PPR must be obtained by telephone, on...

Any questions, please speak to Main Operations Team."

Analysis and Investigation

UKAB Secretariat

Both the NATS radar replay and ADS-B data sources were viewed for the time of the Airprox and neither aircraft could be positively identified at their level of operation in the vicinity of Compton Abbas. The PA22's navigation log provided information on their flight, but there was no such information available for the Thruster.

The PA22's navigation log displayed their third circuit and subsequent go-around as described by the pilot, including the extended direct heading before turning onto a right-hand crosswind after CPA (Figure 2).

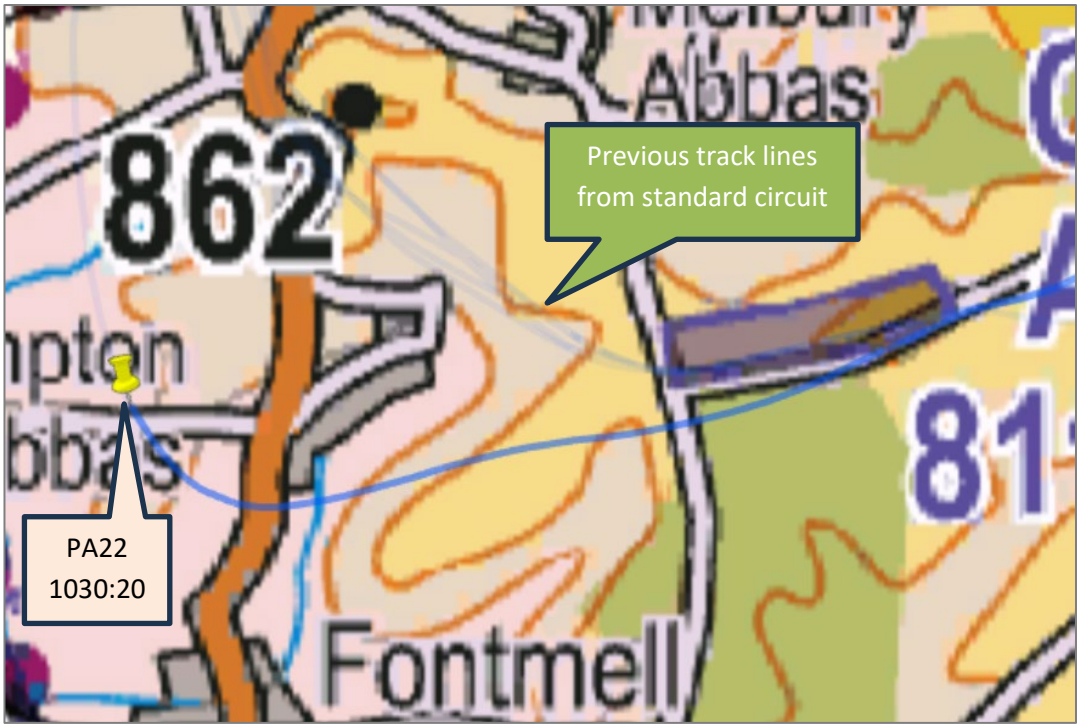


Figure 2 – Time 1030:20 position of the PA22 after CPA

Based on the reports from both pilots, the Thruster turned left after departure. As the PA22 pilot had not taken their right turn prior to CPA, the Airprox is assessed to have occurred between the end of RW26 and Compton Abbas village at approximately 1029:48. The separation at CPA could not be determined.

The PA22 and Thruster pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[2] 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.[3] An aircraft in flight, or operating on the ground or water, shall give way to aircraft that are landing or in the final stages of an approach to land.[4]

Summary

An Airprox was reported when a PA22 and a Thruster flew into proximity at Compton Abbas at approximately 1030Z on Saturday 17th August 2024. Both pilots were operating under VFR in VMC and both were in receipt of an Air Ground Communications Service from Compton Radio.

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.
[4] (UK) SERA.3210(c)(4) Right of Way.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, GPS track data for the PA22, and a report from the air/ground operator 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 first looked at the actions of the PA22 pilot and wished to thank them for their thorough report. Members noted the pilot's decision to have executed a go-around and hold a position where they would have been able to monitor the Thruster's position and anticipated right turn. The Board recognised that it had been unfortunate that the PA22 pilot had not expected the Thruster pilot not to have followed the noise abatement procedures, and members agreed, therefore, that the PA22 pilot had held inaccurate situational awareness regarding the Thruster pilot's intended actions (**CF7**). The Board further agreed that the PA22 pilot had been surprised by the unannounced left turn, towards them, by the Thruster pilot, causing them to have become concerned by the Thruster's proximity (**CF9**).

Turning their attention to the Thruster pilot's actions, the Board considered that the pilot, knowing that their aircraft would have been prone to overheating, could have planned to depart a few minutes later when the queue to leave had reduced or, if that had not been possible, to have explained the situation to the arriving PA22 pilot and to have asked if they would have minded them making a quick departure ahead of them. The Board agreed, therefore, that the Thruster pilot had not adequately adapted their plans for the situation (**CF4**), having lined up on the runway and departed with an aircraft in the final stages of an approach to land. The Board agreed that the pilot had not conformed with the pattern of traffic already formed on the final approach (**CF5**). Carrying their thoughts regarding the lack of communication with the PA22 pilot through, members further agreed that the Thruster pilot had not communicated their intentions to depart on runway track (without observing the noise abatement procedures) (**CF2**), thus deviating from the published departure procedures for the day (**CF1**). The Board agreed that the non-observance of the noise abatement procedures, and subsequent left turn by the pilot, had directly contributed to the Airprox (**CF3**). The Board assessed that during their climb-out, although the Thruster pilot had been aware of the PA22 pilot's go-around, they had not sufficiently integrated with the PA22 established in the visual circuit (**CF6**). The Board agreed that the Thruster pilot's position was such that they had not sighted the PA22 (**CF8**) because it had become obscured from their view as it tracked behind them during its go-around (**CF10**).

When considering the actions of the air/ground operator, the Board was thankful for their input and applauded their intervention in having reminded the Thruster pilot of the PA22 on the final approach. Members agreed that there was little else that they could have done to improve matters.

Concluding their discussion, and in assessment of categorising the risk, some members considered that this incident as 'safety not assured', and that the PA22 pilot had made a last minute avoidance manoeuvre that had not entirely removed any risk of collision (Risk Category B), however, a small majority of members considered that, as the PA22 pilot had been monitoring the Thruster during the approach and go-around, although safety had been degraded they had been well-placed to have performed timely and effective avoiding action and had prevented the aircraft from coming into close proximity resulting in no risk of collision. As such, the Board assigned a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024214			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• Flight Crew ATM Procedure Deviation	An event involving flight crew deviation from applicable Air Traffic Management procedures.	
	• Tactical Planning and Execution			
2	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
3	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
4	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
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	Human Factors	• Incomplete Action	Events involving flight crew performing a task but then not fully completing that task or action that they were intending to carry out	Pilot did not sufficiently integrate with the other aircraft despite Situational Awareness
7	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			
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	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
10	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 Assessment[5]

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

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the Thruster pilot deviated from the noise abatement departure procedure for RW26.

Tactical Planning and Execution was assessed as **ineffective** because the Thruster pilot had not communicated their departure intentions and had not correctly executed the published departure procedure.

[5] 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 Conflicting Aircraft and Action were assessed as **ineffective** because the PA22 pilot had inaccurate situational awareness of the intended departure actions of the Thruster pilot.