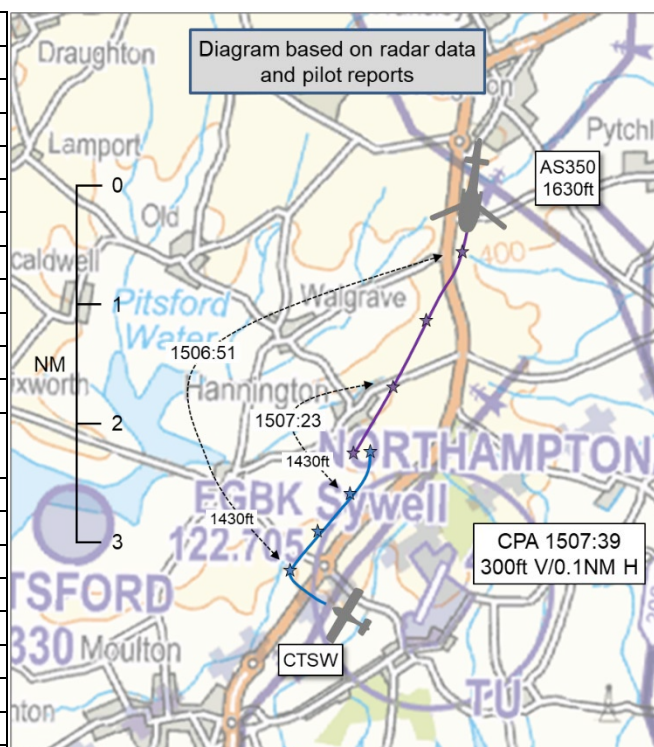


AIRPROX REPORT No 2025007

Date: 29 Jan 2025 Time: 1508Z Position: 5219N 00048W Location: Sywell Airfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Microlight CTSW	AS350
Operator	Civ FW	Civ Helo
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Sywell Radio	Sywell Radio ¹
Altitude/FL	1330ft	1630ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White	Blue
Lighting	Navigation, anti-coll,	Navigation, strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1400ft	1700ft
Altimeter	QNH (1003hPa)	QNH
Heading	030°	220°
Speed	90kt	130kt
ACAS/TAS	SkyEcho	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	100ft V/200m H	500ft V/0.5NM H
Recorded	300ft V/0.1NM H	



THE CTSW PILOT reports that they had returned to Sywell and joined the circuit for two touch-and-goes followed by a full stop landing. The first two circuits were completed uneventfully. Whilst on downwind of the final circuit, they had heard the pilot of the AS350 call Sywell Radio reporting a position to the west and at 1600ft asking for any traffic in the vicinity. The Radio operator advised both rotary (left-hand) and fixed-wing (right-hand) circuits active for RW21. At that time, the microlight pilot was at the midpoint of the downwind leg, and sighted the helicopter at a similar altitude, routing along the downwind leg in the opposite direction, closing rapidly but slightly off to their left side. The microlight pilot did not take any avoiding action as their relative bearings combined with their slightly offset tracks would not have resulted in a collision. There had been another aircraft on downwind behind them, the pilot of which also sighted the traffic and expressed surprise at the routing chosen by the AS350 pilot.

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

THE AS350 PILOT reports that they had spoken to Sywell Radio while approaching from the north and passed their intentions to route west of the field and asked for Traffic Information. The Radio Operator reported that the circuit was active. The AS350 maintained their altitude above circuit height, altered their course to the west, maintained visual contact with the circuit traffic and continued their flight to the south. The Radio Operator at Sywell thanked them for their call once they had been cleared to the south and they changed frequency.

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

THE SYWELL RADIO OPERATOR reports that they had been on the radio that day and had reported no traffic to affect [the CTSW] as they had been inbound and there was nobody else on frequency. As

¹ Pilot reports having been in receipt of an AGCS from Sywell Radio; Sywell has no record of that contact.

the CTSW came around the circuit, the helicopter had flown straight through, at circuit height and without making any radio calls, including blind calls [they recalled].

The CTSW pilot actually mentioned on the radio [at the time] what the [AS350] helicopter had done and there was no response from the [AS350] pilot so the Sywell AGO cannot even be sure they were on [the Sywell] frequency.

Factual Background

The weather at Cranfield Airport was recorded as follows:

METAR EGTC 291450Z 29003KT 260V320 9999 BKN023 07/04 Q1003=

Analysis and Investigation

UKAB Secretariat



Figure 1: At 1507:35 CTSW at 1650ft. AS350 at 1875ft



Figure 2: At CPA: 1507:39 300ft V/0.1NM H

The CTSW and AS350 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 If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.³ 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.⁴

Summary

An Airprox was reported when an CTSW and an AS350 flew into proximity at Sywell at 1508Z on Wednesday 29th January 2025. The CTSW pilot was operating under VFR in VMC and in receipt of an Air/Ground Communication Service from Sywell, and the AS350 pilot had been operating under VFR in VMC and likely in receipt of an Air/Ground Communication Service from Sywell.

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 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 firstly discussed the actions of the CTSW pilot, noting the nature of the flight and their actions on having heard the radio call from the AS350 pilot. Members recognised that, on visually acquiring the AS350, they had judged it to have been too close to the circuit and had been concerned by its proximity (**CF6**) but sufficiently offset to ensure no risk of collision and, maintaining visual contact, had continued with their planned circuit work. The Board also noted that the CTSW pilot had equipped with an electronic conspicuity unit which had not registered any emissions from the AS350 (**CF4**).

Members secondly discussed the actions of the AS350 pilot, noting positively that they had called Sywell as they had passed and, as the airfield no longer has an ATZ, had flown away from the overhead to avoid activity in the immediate area. The Board felt that, although that had been positive action from the AS350 pilot, they potentially could have chosen to fly wider or higher to be absolutely sure they would not have impinged on airfield activity (**CF1, CF2**). Members felt that the flightpath followed by the AS350 had not adequately avoided the pattern of traffic in the circuit (**CF3**) and had caused the CTSW pilot some concern (**CF5**).

Moving onto the actions of the Sywell Radio Operator, members acknowledged the report as submitted but opined that they had perhaps mis-identified the incident on this occasion as the reports from both pilots had been clear that the RT calls had been both timely and accurate and had helped build situational awareness for both. The Board felt that the Radio operator could have done no more in this case.

Concluding their discussion, members noted that the CTSW pilot had gained situational awareness of the presence of the AS350 through radio calls and had achieved visual contact, albeit much closer to their own circuit-positioned track than had felt comfortable and from the opposite direction, and the AS350 pilot reported having visually acquired the circuit traffic and maintained separation as they had flown on their own track to the west of the airfield. Members felt that, although safety had been degraded, both pilots had been visual with each other and that there had been no risk of collision. Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2025007			
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² (UK) SERA.3205 Proximity.

³ (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

⁴ (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
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
	• Tactical Planning and Execution			
2	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
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
	• Electronic Warning System Operation and Compliance			
4	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
	• See and Avoid			
5	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
6	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 Assessment⁵

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 **ineffective** because the AS350 pilot did not adequately avoid the pattern of traffic at Sywell.

Tactical Planning and Execution was assessed as **partially effective** because the AS350 pilot could have elected to fly laterally further from the Sywell circuit or crossed the area at a greater altitude.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the CTSW had been unable to detect any electronic emissions from the AS350.

⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

Airprox Barrier Assessment: 2025007		Outside Controlled Airspace			
Barrier		Provision	Application	Effectiveness	
				Barrier Weighting	
				0%	5% 10% 15% 20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓	<div><div></div></div>	
	Manning & Equipment	✓	✓	<div><div></div></div>	
	Situational Awareness of the Confliction & Action	○	○	<div><div></div></div>	
	Electronic Warning System Operation and Compliance	○	○	<div><div></div></div>	
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✗	<div><div></div></div>	
	Tactical Planning and Execution	✓	!	<div><div></div></div>	
	Situational Awareness of the Conflicting Aircraft & Action	✓	✓	<div><div></div></div>	
	Electronic Warning System Operation and Compliance	✗	✓	<div><div></div></div>	
	See & Avoid	✓	✓	<div><div></div></div>	
Key:		Full	Partial	None	Not Present/Not Assessable
Provision		✓	!	✗	○
Application		✓	!	✗	○
Effectiveness		<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>