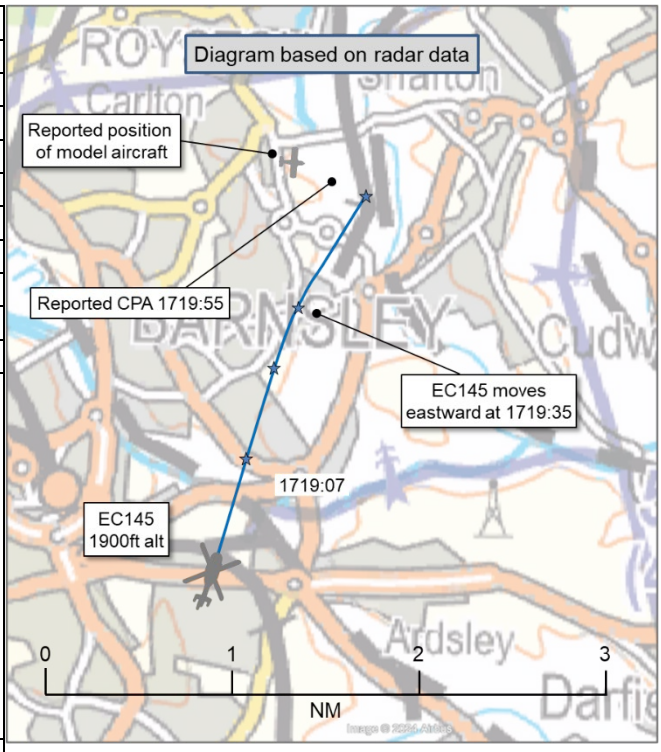
AIRPROX REPORT No 2024106

Date: 02 Jun 2024 Time: ~1720Z Position: 5334N 00126W Location: IVO Barnsley

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC145	Model Aircraft
Operator	HEMS	Civ UAS
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	NK
Service	Basic	NK
Provider	Leeds Radar	NK
Altitude/FL	1900ft	NK
Transponder	A, C, S	NK
Reported		
Colours	Yellow	Untraced
Lighting	Anti-coll, strobe, navigation, landing	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	1900ft	
Altimeter	QNH (1025hPa)	
Heading	017°	
Speed	125kt	
ACAS/TAS	TAS	
Alert	None	
Separation at CPA		
Reported	NR	Untraced
Recorded	NK	



THE EC145 PILOT reports that they were returning from a HEMS tasking in the northwest of Sheffield, back to their base at [destination]. In the cruise at 1900ft AMSL and 125kt, the technical crew member spotted a "red and white thing" in front of them that had been climbing. Due to its size, colour and movement, the crew initially believed it was a balloon or a kite. They assumed the likely course for it would be for it to continue upwards towards the aircraft. Avoiding action was taken by altering course to the east. As they got closer to the object, it became clear that it was a model aircraft doing aerobatics. They then spotted a strip nearby from which it was likely being flown [they opined]. As it was hard to tell if the model flying aircraft was large or small, it was hard to say if it was close or far away. The crew continued with the course deviation until clear of the potential threat.

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

THE MODEL AIRCRAFT PILOT could not be traced.

THE LEEDS RADAR CONTROLLER reports that, in the absence of the ATCO involved, the Head of ATS filed this report on their behalf - the EC145 pilot called Leeds Radar at 1716, in an area of high radar clutter. None of the clutter stood out as possibly being another aircraft. The EC145 pilot called letting down and leaving frequency at 1722 having arrived back at [destination]. At no point had there been any mention of an Airprox.

The weather at Leeds Bradford was recorded as follows:

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METAR EGNM 021650Z 27015KT 9999 FEW022 17/12 Q1025=
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Analysis and Investigation

UKAB Secretariat

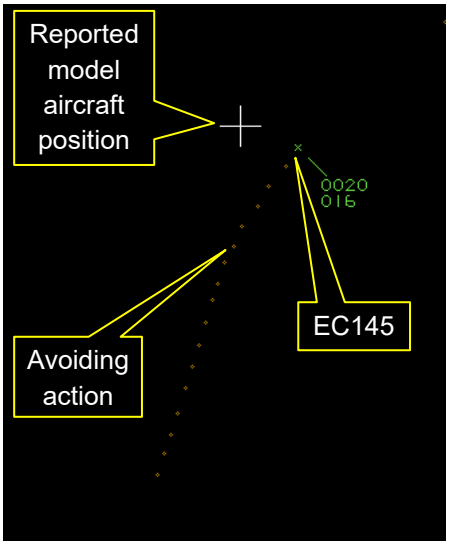


Figure 1: Reported CPA ~1719:55

Despite significant effort, the operator of the model aircraft could not be traced. The EC145 was tracked using its Mode S transponder. Figure 1 (above) shows the reported position of the model aircraft and the path of the EC145. Approximately 20sec ahead of the reported CPA, the EC145 can be seen to have taken a turn towards northeast.

The EC145 and model aircraft 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] During the flight, the remote pilot shall keep the unmanned aircraft in VLOS and maintain a thorough visual scan of the airspace surrounding the unmanned aircraft in order to avoid any risk of collision with any manned aircraft. The remote pilot shall discontinue the flight if the operation poses a risk to other aircraft, people, animals, environment or property.[2]

Summary

An Airprox was reported when an EC145 and a model aircraft flew into proximity in the vicinity of Barnsley at around 1720Z on Sunday 2nd June 2024. The EC145 pilot was operating under VFR in VMC and in receipt of a Basic Service from Leeds Radar. The model aircraft remote pilot could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the EC145 pilot, radar photographs/video recordings and a report on behalf of the air traffic controller 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 discussed the actions of the EC145 pilot and that of the controller. They agreed that the route flown and service provided had been as per normal procedures. They opined that it had been unfortunate that the operator of the model aircraft had not been traced and wished to encourage all involved to contribute to the Airprox process to aid in full understanding of the circumstances that lead to such events. With no apparent electronic conspicuity in operation by the model aircraft operator, it had been clear that situational awareness of its presence had been limited to any possible radar identification by the Leeds controller which had, unsurprisingly, not materialised. The value and

[1] (UK) SERA.3205 Proximity.
[2] Regulation (EU) 2019/947 as retained (and amended in UK domestic law) Under the European Union (Withdrawal) Act 2018 - UAS.SPEC.060 Responsibilities of the remote pilot (2)(b).

limitations of a Basic Service are both well understood and members recognised that nothing more could have been offered by the Leeds controller in this case. Fortuitously, the excellent lookout of the EC145 crew had identified the model aircraft at a range that enabled early and positive decision-making to avoid the site. The lack of information available regarding the operation of the model aircraft had led the Board to conclude that insufficient information was available to determine the risk involved and therefore awarded a Category D to this Airprox.

CF1: The Leeds Radar Controller had not been required to monitor the flight under a Basic Service.

CF2: The model aircraft operating site had not been displayed in relevant flight planning material.

CF3: The EC145 pilot had no situational awareness of the presence of the model aircraft.

CF4: The equipment carried by the EC145 had not been able to detect any electronic emissions from the model aircraft.

CF5: The EC145 pilot had been concerned by the proximity of the model aircraft.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024106			
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	Organisational	• Flight Planning Information Sources	An event involving incorrect flight planning sources during the preparation for a flight.	
	• 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
	• 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	• 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: D.

Safety Barrier Assessment[3]

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

Ground Elements:

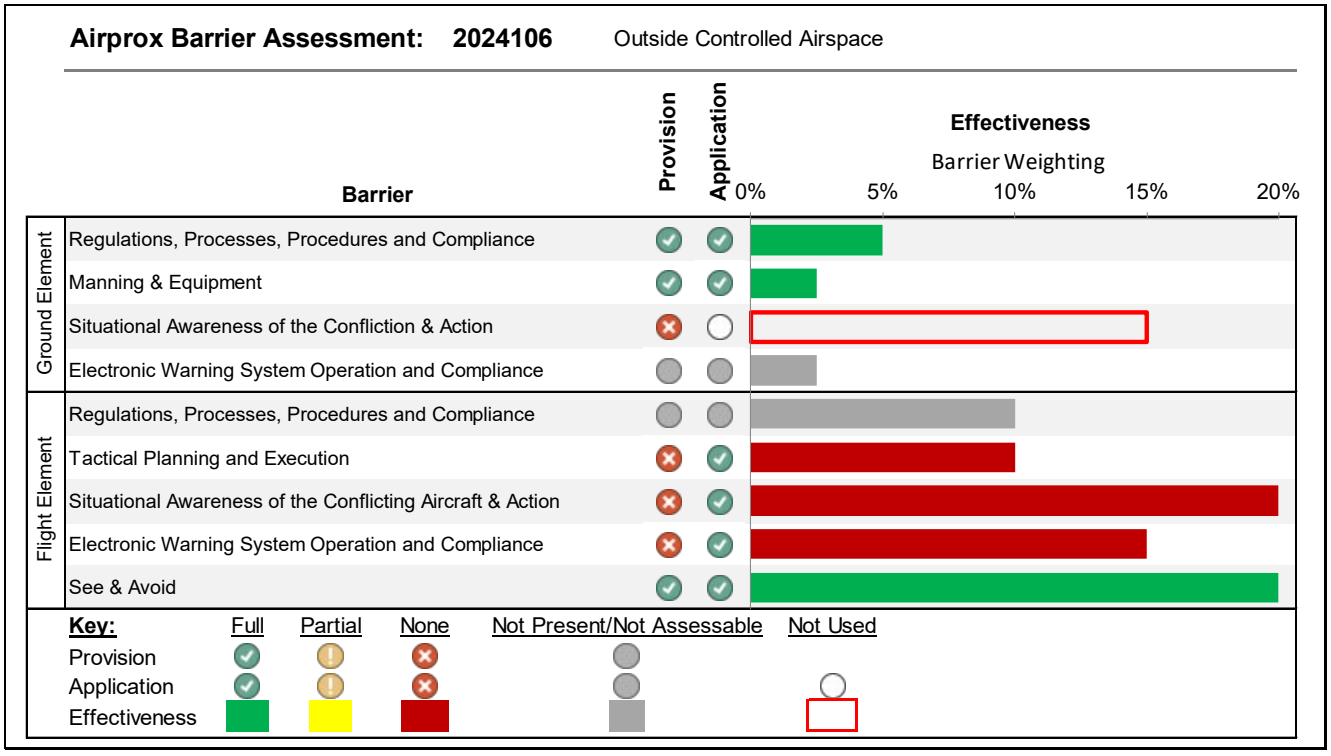
Situational Awareness of the Confliction and Action were assessed as **not used** because the Leeds Radar Controller had not been required to monitor the flight under a Basic Service.

Flight Elements:

Tactical Planning and Execution was assessed as **ineffective** because the model aircraft operating site had not been displayed in relevant flight planning material.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the EC145 pilot had no situational awareness of the presence of the model aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the EC145 had not been able to detect any electronic emissions from the model aircraft.



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