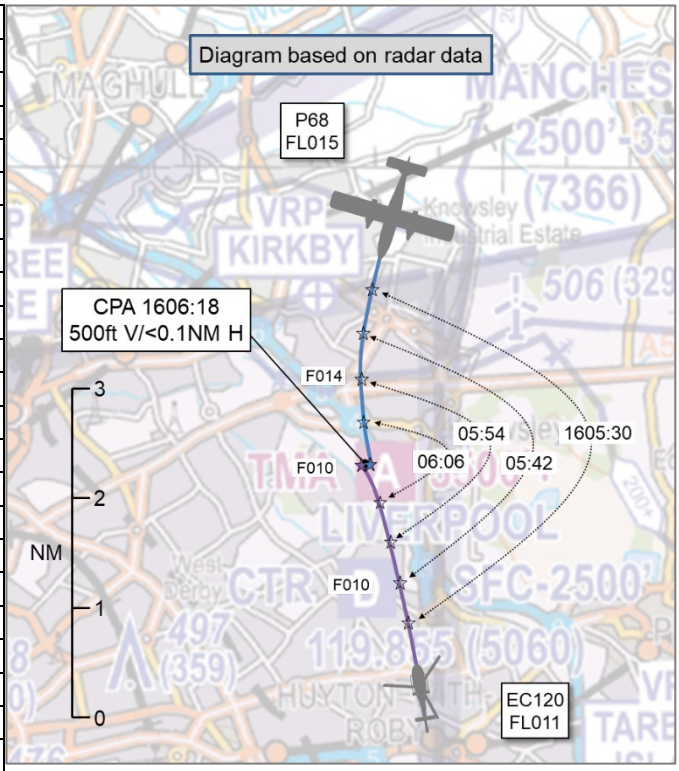
AIRPROX REPORT No 2025037

Date: 20 Mar 2025 Time: 1606Z Position: 5327N 00252W Location: Croxteth

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	P68	EC120
Operator	Civ Comm	Civ Comm
Airspace	Liverpool CTR	Liverpool CTR
Class	D	D
Rules	VFR	VFR
Service	Radar Control	Radar Control
Provider	Liverpool	Liverpool
Altitude/FL	FL015	FL010
Transponder	A, C, S	A, C, S
Reported		
Colours	White	Dark grey
Lighting	Beacon, nav	'yes'
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	1500ft	~1000ft
Altimeter	QNH (1016hPa)	QNH (NK hPa)
Heading	180°	NK
Speed	120kt	~100kt
ACAS/TAS	SkyEcho	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	250ft V/0m H	'hard to say'
Recorded	500ft V/<0.1NM H	



THE P68 PILOT reports that, as they approached the Kirkby VRP to join at Liverpool, helicopter traffic was reported to them about 5NM south of Kirkby at 1200ft, heading north. They were unable to see the traffic so informed ATC they weren't visual. They believe the helicopter [pilot] reported visual with them. After being placed under Radar Control they then had another update on the traffic, 3.5NM south of their position, 400ft below. They were still unable to see the traffic but continued looking. Shortly after, they saw the helicopter pass directly below them with a clearance of what appeared to be 200-300ft. As they only saw the helicopter at the last minute no avoiding action was taken.

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

THE EC120 PILOT reports they and the pilot passenger reviewed their recollection and available data and had the following notes to make: P1 with 20 years of flying experience. Passenger in P2 seat was an IR rated TBM960 and rotary pilot with 20+ years of experience. The flight was conducted under VFR and in communication with Liverpool ATC at the time. They were passed Traffic Information regarding a P68 in the area and were actively looking out. Liverpool ATC also reported their whereabouts to the P68 [pilot]. An aircraft was sighted (possibly the P68), but they had no recollection of any requirement for a considerable avoidance manoeuvre. They maintained appropriate lookout throughout. In their view, this was a routine VFR interaction and did not constitute a near miss or require any safety-related manoeuvre.

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

THE LIVERPOOL CONTROLLER reports that at about 1602 they had a request from [the P68 pilot], to re-join Liverpool's controlled airspace through the Kirby VRP (this being the non-standard entry point used for VFR arrivals for RW09). As the traffic was light, they accepted the request and [the P68 pilot] was given a joining clearance. A couple of minutes later, helicopter [EC120 C/S] departed Liverpool, routing to leave the zone at Kirby. When the helicopter pilot checked in on frequency, they passed

Traffic Information on [the P68] and vice versa. As [the P68] entered at Kirby, they updated the Traffic Information on the helicopter, which was then 3NM south of them, and also updated [the EC120 pilot] on the position and altitude of [the P68], to which the pilot replied "traffic in sight".

THE LIVERPOOL SENIOR CONTROLLER ON DUTY reports that, following a review of the [radar replay] recording, they believed that all ATCO actions were correct. Traffic Information was passed in good time to both [pilots] whilst there was significant distance between them. As the aircraft got closer to each other, this Traffic Information was updated and passed for a second time to each [pilot]. The helicopter [pilot] reported visual with the P68. They would advise based aircraft not to request shortcuts and instead join/depart using the well-established 'standard' arrival and departure VFR routes if they wish to avoid conflictions inside Liverpool CAS. If Seaforth Dock had been used as a VFR entry point then this confliction may not have occurred.

Factual Background

The weather at Liverpool was recorded as follows:

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METAR EGGP 201620Z 13006KT CAVOK 15/07 Q1016=
METAR EGGP 201550Z 13006KT CAVOK 15/07 Q1016=
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Analysis and Investigation

CAA ATSI

CAA ATSI did not conduct a formal investigation but did note that timely and reciprocal Traffic Information was passed on two occasions, on the second occasion the EC120 pilot reported having the P68 in sight and there was 500ft between them as they passed below/above each other.

UKAB Secretariat

The P68 and EC120 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]

CAP493 (MATS Part 1) Section 1, Chapter 5 (Integration of VFR Flights with IFR Traffic in Class D CTR/CTA/TMA) Part 3 (Control of VFR Flight) states as follows:

> '3.1 The minimum services provided to VFR flights in Class D airspace are specified at Section 1, Chapter 2, paragraph 2. Separation standards are not prescribed for application by ATC between VFR flights or between VFR and IFR flights in Class D airspace. However, ATC has a responsibility to prevent collisions between known flights and to maintain a safe, orderly and expeditious flow of traffic. This objective is met by passing sufficient traffic information and instructions to assist pilots to 'see and avoid' each other as specified at Section 3, Chapter 1, paragraph 2A.2.
>
> 3.2 […]
>
> 3.3 Routeing instructions may be issued which will reduce or eliminate points of conflict with other flights, such as final approach tracks and circuit areas, with a consequent reduction in the workload associated with passing extensive traffic information. VRPs may be established to assist in the definition of frequently utilised routes and the avoidance of instrument approach and departure tracks. Where controllers require VFR aircraft to hold at a specific point pending further clearance, this is to be explicitly stated to the pilot.'

Liverpool Occurrence Investigation

Timeline:

16:01 Tower reported [EC120 C/S] airborne to Kirby VRP.

[1] (UK) SERA.3205 Proximity.

16:03 [P68 C/S] requested re-join instructions. Radar ATCO asked the pilot where they would like to join. The pilot specified Kirby VRP (non-standard entry point when on RW09) and clearance to enter at Kirby was given.

16:04 [EC120 C/S] checked in on frequency. Radar ATCO issued Traffic Information on P68 shortly joining at Kirby not above 2000ft. [P68 C/S] then given Traffic Information on [EC120 C/S] 5NM south of Kirby northbound indicating 1200ft.

16:05 [P68 C/S] reported at Kirby VRP. Radar ATCO instructed the pilot to route to Garston Docks for RW09. Updated Traffic Information was then given to [P68 C/S] on the helicopter 3.5NM south of them northbound. [EC120 C/S] was given updated Traffic Information on the P68 passing through their 12 o'clock right to left 400ft above; [EC120 C/S] reported visual with [P68 C/S].

16:06 Both contacts merged on the [radar replay], [EC120 C/S] indicated 1100ft and [P68 C/S] indicated 1600ft.

Findings: On reviewing the [radar replay], both contacts merged, [EC120 C/S] indicated 1100ft and [P68 C/S] indicated 1600ft. Traffic Information was passed twice to each [pilot] and [EC120 C/S] reported visual with [P68 C/S].

Root cause: Inbound VFR aircraft used a non-standard routeing, putting them into confliction with standard VFR departure route on RW09.

Recommendations: All ATCO actions were correct. The traffic levels were light and the controller was confident that they would be able to pass sufficient Traffic Information which they did. The controller passed Traffic Information whilst the aircraft were at a significant distance away and then updated as they got closer. A recommendation would be to speak to the local flying operators and suggest that they don't request non-standard routeings and only use standard VFR routeings both outbound and inbound unless on a survey. The standard VFR routes are designed to naturally deconflict traffic.

Summary

An Airprox was reported when a P68 and an EC120 flew into proximity near Croxteth at 1606Z on Thursday 20th March 2025. Both pilots were operating under VFR in VMC, both in receipt of a Radar Control Service from Liverpool.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the air traffic controller involved and reports from the appropriate operating authorities. 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 agreed that the P68 pilot had probably been startled by the proximity of the EC120, due in part to their late sighting of it, and had perceived a lesser vertical separation than that shown on radar replay. An ATC member noted that although the P68 pilot had requested a 'non-standard' routeing, that request had been agreed to by ATC and that the provisions of CAP493 (MATS Part 1) Section 1 Chapter 5, paras 3.1 and 3.3 had applied, i.e. although the P68 pilot had requested a 'non-standard' routeing, ATC had still had a responsibility to prevent collisions and maintain a safe, orderly and expeditious flow of traffic. In the event, both pilots had been operating under VFR in Class D airspace, had been passed Traffic Information, the EC120 pilot had seen the P68 and the aircraft had been altitude separated by 500ft, Risk E. The following contributory factors were relevant:

CF1: The EC120 SSR transponder was not ADS-B out capable and so had not alerted the P68 TAS.

CF2: The P68 pilot had seen the EC120 at a late stage.

CF3: The P68 pilot had been concerned by the proximity of the EC120.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025037			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Electronic Warning System Operation and Compliance			
1	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			
2	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
3	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

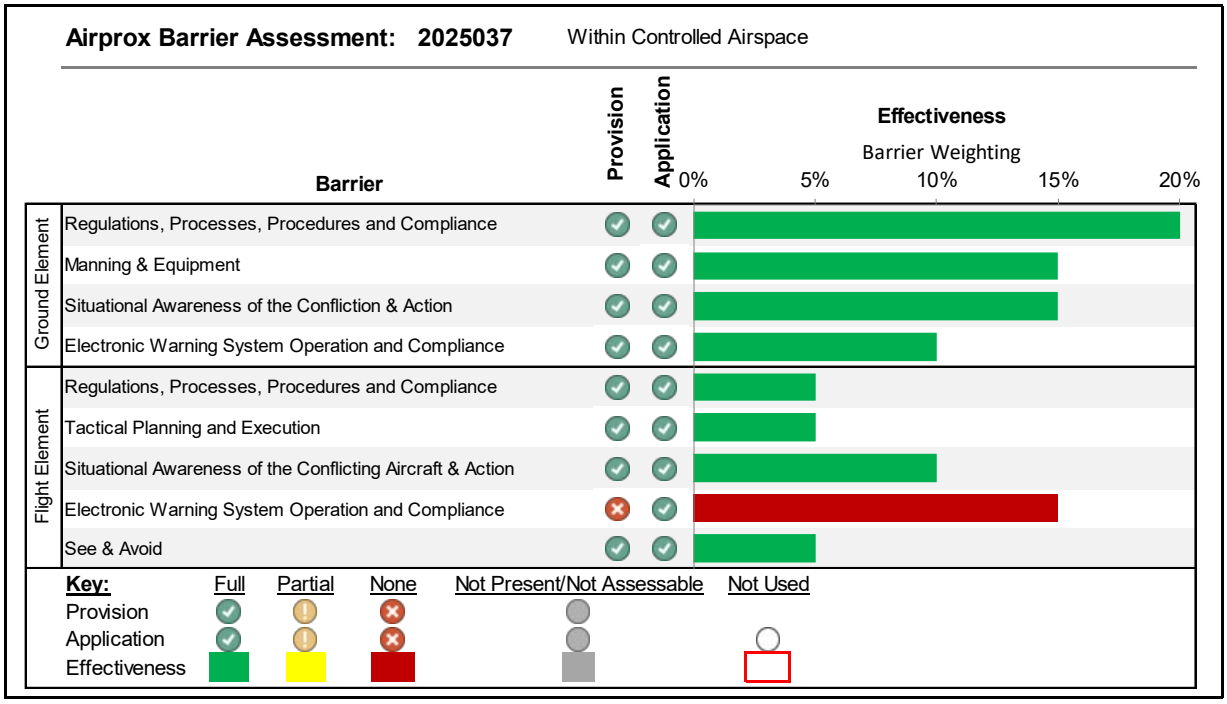
Degree of Risk: E.

Safety Barrier Assessment[2]

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

Flight Elements:

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC120 electronic conspicuity output was incompatible with the P68 TAS.



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