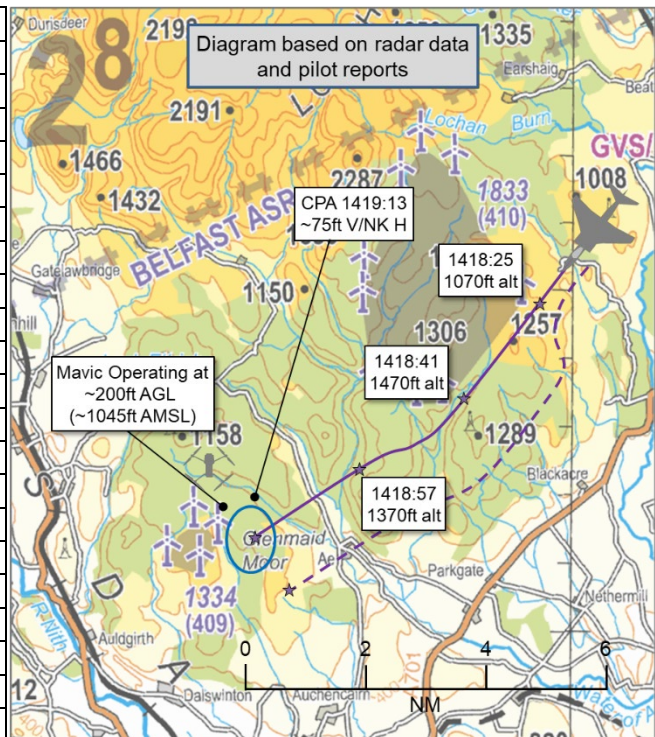


AIRPROX REPORT No 2025237

Date: 12 Nov 2025 Time: 1419Z Position: 5511N 00338W Location: Glenmaid Moor

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Mavic 3M	Hawk
Operator	Civ UAS	HQ Air (Trg)
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VLOS	VFR
Service	None	None
Altitude/FL	~1045ft	970ft
Transponder	Not fitted	A, C, S
Reported		
Colours	Grey	Black
Lighting	Standard	N/R
Conditions	VMC	VMC
Visibility	5-10km	>10km
Altitude/FL	197ft AGL	310ft AGL
Altimeter	NR	NR
Heading	'Northeast'	233°M
Speed	29kt	428kt
ACAS/TAS	Not fitted	TCAS I
Alert	N/A	None
Separation at CPA		
Reported	500ft V/500ft H	Not seen
Recorded	~75ft V/NK H	



THE MAVIC PILOT reports that they had been performing an orthomosaic survey of the clear fell ground for work purposes. They were flying an automated flight set at 60m (196ft) to capture the area. Their observer was close to them and watching the sky and drone with them as well whilst performing the survey. They had good visibility of the sky and a good view of the area. They had made a risk assessment and checked NOTAMs in the morning prior to going out, and again prior to actually setting the drone in the sky with nothing shown as being in the area. While flying, and as the drone was on approach to [the operating pilot], they suddenly heard a jet engine behind them and to their left (bearing NE/E). There was slightly raised ground obscuring their vision approximately 400-500m away and the jet appeared over it and was heading towards the drone work area. The jet was very low and travelling extremely fast. The drone pilot reports that they had limited seconds to react (around 3-4) and chose to leave the drone at its set height as they felt they were safe at 60m. The Mavic pilot estimated the jet to be at 100-120m, maybe slightly higher, but it was very hard to tell and perception may have made it appear closer than it was. They feel it was within the drone legal limits of 120m, however. The jet went above the drone and slightly further behind it, but it was quite difficult to tell as it was all over in a matter of seconds. The drone continued on the automated flight whilst the pilot was still in a bit of shock at the incident, and they had brought it back down after its next pass in case of another aircraft as well as low battery showing on the display. The Mavic pilot aborted the flight once landed and checked flight radar to see if they could identify the plane. They also checked NOTAMs again to see if anything was made visible that they hadn't been aware of. They did get the identity of the aircraft but nothing was visible on NOTAMs about any low flying in the area. The Mavic pilot went home and reported the incident to their line manager and proceeded to make an ECCAIRS report.

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

THE HAWK OPERATOR'S SAFETY MANAGER reports that this DASOR narrative was being submitted on behalf of the handling pilot by the Air Safety Manager of 4FTS, for UK Airprox Board investigative purposes, after a drone operator reported an Airprox with a Hawk at low-level. The incident

was reported in the vicinity of position 55°11'07N 003°38'16W (Dumfries and Galloway). The Hawk, operating at approximately 310ft AGL, 428kt, heading 233°M at the time of the report, was squawking 7001 Mode A, C, S and utilising TCAS. Weather was 10km+ visibility and cloudbase BKN 020 AGL. During the flight planning process, CADS was utilised and displayed no conflicts in that area. No drone was sighted at the time, nor was one evident when the [flight planning aid] replay tape from the Hawk was reviewed post flight.

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

Factual Background

The weather at Prestwick airport was recorded as follows:

METAR EGPK 121420Z 23010KT 9999 FEW018 SCT026 11/09 Q0997=

Analysis and Investigation

UKAB Secretariat



Figure 1: 1419:20.

The Airprox Hawk showed on an open-source tracking tool (Figure 1) at the approximate CPA. 1572ft SPS (~1140ft Alt)/-1664fpm/401kt/237°. The Airprox Hawk had been at ~1400ft SPS (~970ft Alt). Terrain in the Mavic operating area is approximately 845ft. The Hawk formation leader's icon had 'frozen' on this system at this time and did not refresh until post-CPA. With the passing Hawk at a QNH-adjusted altitude of approximately 970ft, and the Mavic operating at ~200ft AGL (the terrain in that area is approximately 845ft puts the Mavic at ~1045ft Alt), CPA was therefore assessed to have been ~75ft V/NK H.

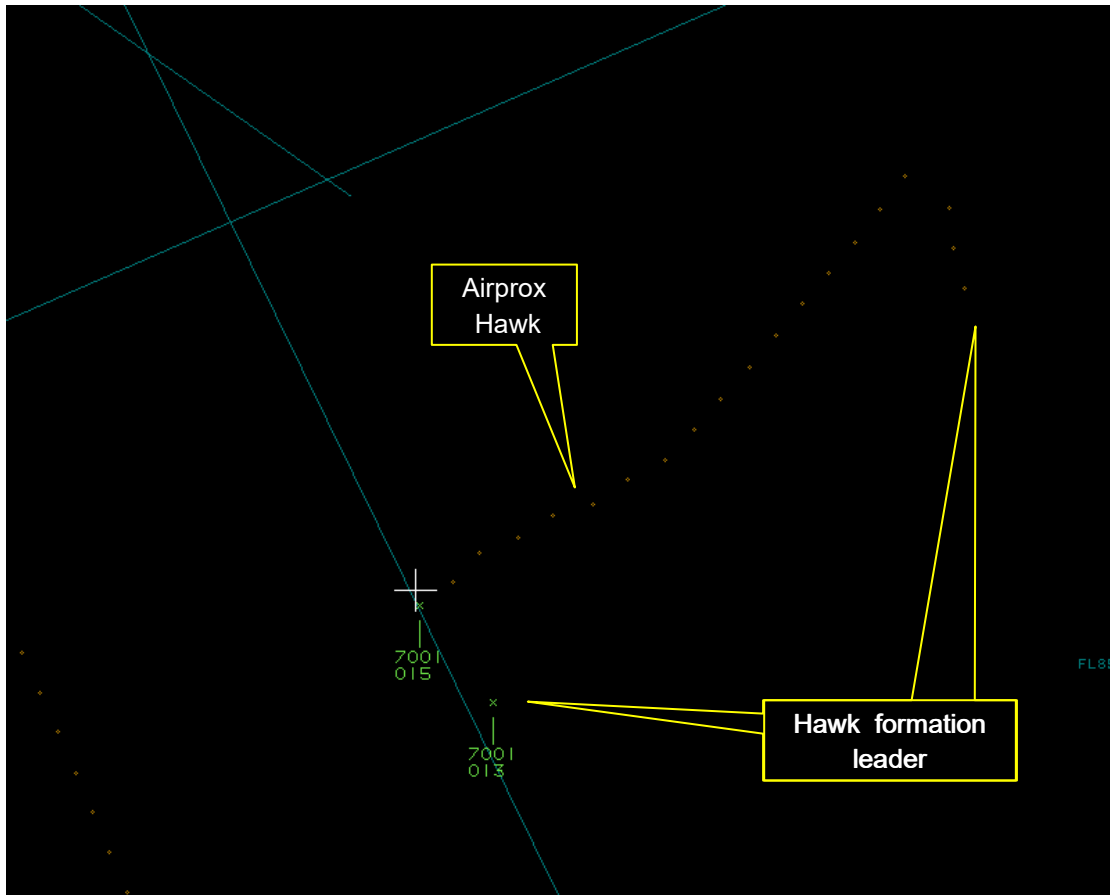


Figure 2: CPA +2sec (1419:15). White cross indicates reported position of Airprox

The Hawk aircraft was tracked via radar and identified through Mode S data. That aircraft also appeared intermittently on open-source ADS-B tracking systems. The Mavic did not appear on radar or any of the other aircraft tracking tools available to the UKAB Secretariat. The diagram at page 1 was constructed using radar and pilot-provided reports.

The Mavic and Hawk 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

Comments

HQ Air Command

This incident highlights the limitations of see-and-avoid in the low-level environment when encountering small Uncrewed Air Systems (UAS). The drone was operated in the Open category, below 400ft, and within VLOS and, as such, it was flown in accordance with the CAA Drone and Model Aircraft Code. While in LFA 16, the Hawk formation was authorised to operate to a minimum of 250ft AGL. There was no requirement for either party to submit a NOTAM for their activity. As a result, neither party was aware of the activity of the other, and the sorties were not deconflicted at the planning stage. Due to the terrain, and the height and speed of the Hawk, this was a late spot for the drone operator which limited their ability to react. The Hawk formation was unaware of the

¹ (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

² Assimilated Regulation (EU) 2019/947- UAS.OPEN.060 Responsibilities of the remote pilot (2)(b)

drone throughout the encounter, and it was not visible in the recording of the sortie which was analysed post-flight. In this instance, a collision was avoided due to the drone operator choosing to operate at approximately 200ft and the Hawk formation remaining above 250ft AGL in accordance with their authorisation. We thank the drone operator for highlighting this incident.

Summary

An Airprox was reported when a Mavic 3M Drone and a Hawk flew into proximity at Glenmaid Moor at 1419Z on Wednesday 12th November 2025. The Mavic pilot was operating under VLOS in the Open category and the Hawk pilot was operating under VFR in VMC and had been Listening Out on the Low-Level Common frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the Mavic drone operator and the Hawk pilot's safety manager and radar photographs/video recordings. 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 Mavic operator, noting that they had been established on a survey task with the appropriate authorisations and had been accompanied by an observer. The Mavic had been operating at and below 200ft AGL, had not carried electronic conspicuity equipment and had operated without an air traffic service. However, the operator had heard the approaching Hawk a few moments before they had gained it visually (**CF3**) and, with that late situational awareness (**CF1**) allowing them little time to act, they had felt that, as the aircraft had appeared to be higher than the Mavic, the most appropriate course of action had been to maintain position as it had then passed overhead. Members accepted that, although the recognised practice is to descend the drone, in this case the decision to hold position had been driven by a combination of late SA and late visual contact and there had been little else that the Mavic operator could have done.

Moving to the actions of the Hawk pilot, the Board noted that they had been operating at low-level in accordance with their rules and authorisation. Their pre-flight preparation had shown no known NOTAMS of drone activity. As the terrain in their operating area, and their altitude, precludes a useful air traffic service, they had been monitoring the Low-Level Common frequency. They had been equipped with a TCAS unit but had received no indications of nearby traffic (**CF2**) and that, combined with a lack of an air traffic service, had denied them any situational awareness of the presence of the Mavic (**CF1**). The pilot had not seen the Mavic at any stage (**CF4**) and was alerted to the event only after having been contacted through the Airprox reporting process.

Members turned to the matter of the consideration of the risk of collision. It was agreed that neither the Mavic operator nor the Hawk pilot had had situational awareness of the other aircraft and the Hawk pilot had not sighted the Mavic. The Mavic operator sighted the Hawk with little time to manoeuvre their aircraft and had quite reasonably held position. It was therefore agreed that safety had been reduced and there had been a risk of collision (**CF5**), and the Board assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
1	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			

2	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				
3	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
4	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
• Outcome Events				
5	Contextual	• Near Airborne Collision with RPAS	An event involving a near collision with a remotely piloted air vehicle	

Degree of Risk: B.

Safety Barrier Assessment³

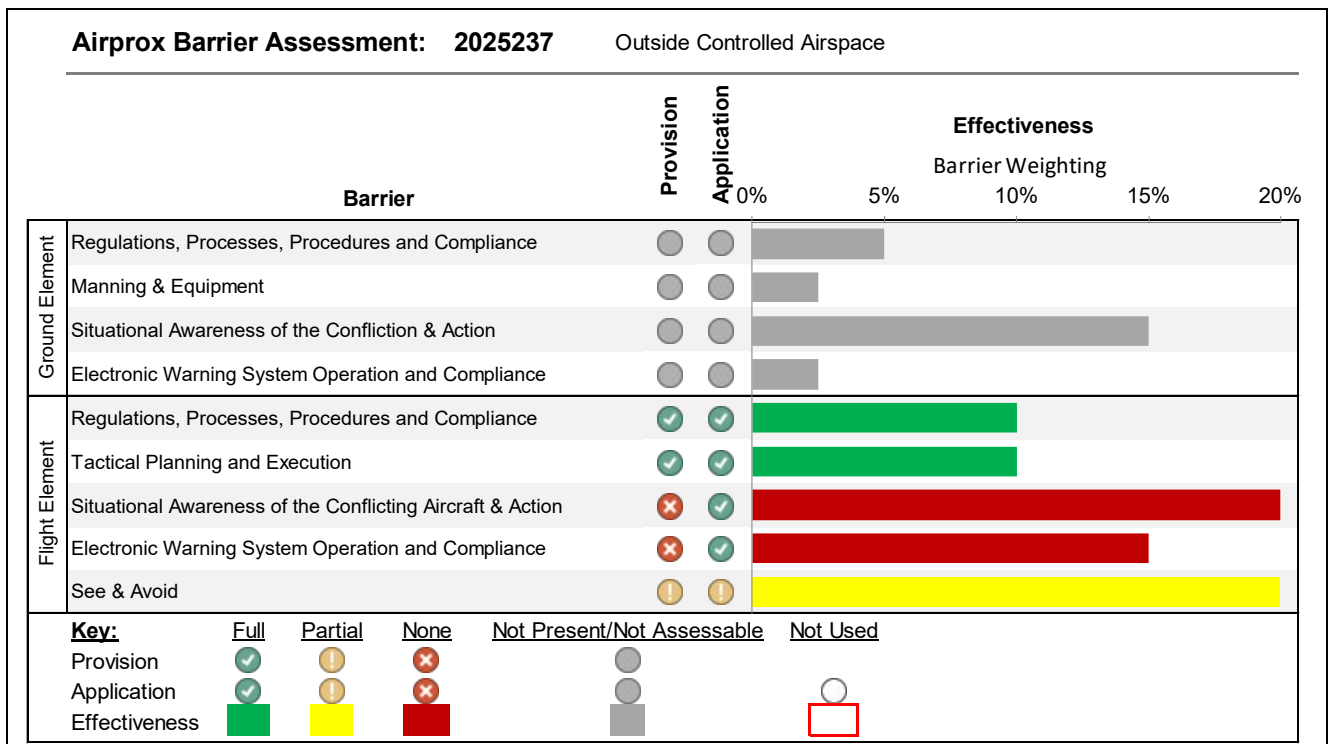
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any situational awareness of the presence of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the electronic conspicuity equipment carried by the Hawk was unable to detect any electronic emissions from the Mavic.

See and Avoid were assessed as **partially effective** because the Hawk pilot had not seen the Mavic and the Mavic pilot had achieved only a late sighting of the Hawk.



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