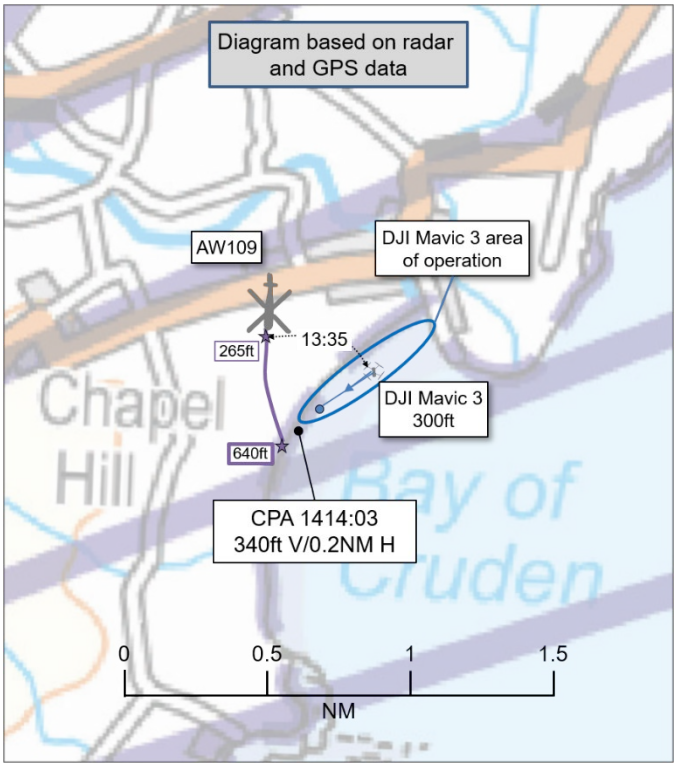
AIRPROX REPORT No 2026121

Date: 23 Jun 2026 Time: 1414Z Position: 5724N 00152W Location: Cruden Bay

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DJI Mavic 3	AW109
Operator	Civ UAS (Spec Cat)	Civ Comm
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VLOS	VFR
Service	None	Listening Out[1]
Provider	N/A	Aberdeen HELS
Altitude	300ft	640ft
Transponder	Not fitted	A, C, S
ADS-B Out	Not observed	Observed
Reported		
Colours	Grey	Grey
Lighting	Nav	Anti-coll nav taxi ldg.
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	300ft AGL	<1000ft
Altimeter	AGL	QNH (1014hPa)
Heading	NK	135°
Speed	10kt	accelerating
ACAS/TAS	Other	TAS
Alert	Information	None
	Separation at CPA	
Reported	Variable V/100m H	Not seen
Recorded	340ft V/0.2NM H	



THE DJI MAVIC 3 PILOT'S ACCOUNTABLE MANAGER reports that the DJI Mavic 3 pilot was completing a photogrammetry survey of Cruden beach and dunes. During the survey, a helicopter left the [local area] and encroached on the survey area at low altitude. The drone pilot had not been made aware that helicopters could take-off and land [nearby] and the helicopter's path/take-off had been obscured by large dunes. There was also no registered heliport [in the area]. Upon seeing the helicopter, the drone pilot paused the drone flight using the pause button on the handset and lowered the drone immediately to a lower and safe altitude to ensure it was well out of the way of the helicopter. Once the helicopter was at a safe distance, the drone pilot continued with the photogrammetry survey.

It was further reported that the drone pilot stopped autonomous flight at 9min 55sec into the flight, [on seeing the AW109], and the altitude dropped.

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

THE AW109 PILOT reports that, at approximately 1413 UTC, they were operating an AW109 in the vicinity of Cruden Bay as part of a normal flight. At no point during the flight did they observe a drone, either visually or through any onboard systems. They were not aware of any conflict with another aircraft during the sortie and did not take any avoiding action or alter their flightpath in response to a drone. They first became aware of the occurrence upon receipt of the UK Airprox Board's request for information. The flight was conducted in accordance with the applicable rules and procedures. They were not aware of any relevant airspace restrictions or notifications that would have indicated drone activity in the area before or during the flight. As they did not observe the drone, they were unable to

[1] The AW109 pilot had not re-established contact with Aberdeen HELS at the time of the Airprox.

comment on its position, altitude, or flightpath. They, therefore, cannot independently confirm that an Airprox occurred.

THE ABERDEEN RADAR CONTROLLER reports that the [pilot of the AW109] reported an Airprox with an unknown drone in the vicinity of Cruden Bay, northeast of [Aberdeen Airport]. The pilot did not report their intention to file an Airprox at the time and did not mention the drone on RT. As there had been no report at the time, details are limited. They had no specific recollection of that shift and, as such, they do not recall any radar contacts that would indicate drone activity or other reports concerning a drone at the time.

Factual Background

The weather at Aberdeen Airport was recorded as follows:

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METAR EGPD 231620Z AUTO 28012KT 9999 NCD 29/16 Q1014
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Analysis and Investigation

NATS Aberdeen

Executive Summary

NATS Aberdeen was informed of an Airprox experienced by [the pilot of the AW109] on the 23rd June. [The AW109 pilot] was operating VFR in the vicinity of Cruden Bay when an Airprox involving an Uncrewed Aircraft System was reported. The pilot of [the AW109] did not report a UAS sighting or their intention to file an Airprox at the time of the event.[2]

Description of the Event

The Aberdeen Offshore Radar HELS and REBROS sectors were operating in a band-boxed configuration. [The pilot of the AW109] was inbound to a landing site at Cruden Bay from the west, operating inside Aberdeen CTA-1 under a VFR clearance of not above 3000ft.

Timeline

1358:00 – The pilot of [the AW109] made their initial contact with Aberdeen Radar (HELS) following transfer from the Aberdeen Approach radar controller. The aircraft was 7NM north of ADN VOR with Mode C indicating 3000ft. HELS advised the pilot they were under a Radar Control Service and to expect a Traffic Service in 8NM upon leaving controlled airspace. This was correctly read back.

1359:42 – The pilot of [the AW109] reported descending to 2000ft. This was acknowledged by HELS.

1400:15–1401:15 – A handover of the HELS sector was conducted. As part of this, the incoming controller was informed that the pilot of [the AW109] had advised they would be on the ground for about five minutes before departing.

1401:54 – [The AW109 pilot] left the CTA at a point 4NM west-northwest of Cruden Bay with Mode C indicating 2000ft.

1403:10 – Mode C indicated further descent commenced, with the aircraft subsequently levelling at 1500ft.

1403:38 – The pilot reported they were commencing descent for Cruden Bay.

[2] NATS Aberdeen had been unaware that the report was initially filed by the DJI Mavic 3 pilot, and that the AW109 pilot had not seen the drone operation.

HELS: *"*[AW109 CS] *roger. Are you able to report on the ground?"*

[AW109 pilot]: *"*[AW109 CS] *we'll do our best and on the ground, hopefully just a couple of minutes, and then lift southbound Peterhead to the lane inbound to you."*

HELS: *"*[AW109 CS] *roger, contact me on lift and I'll give you that clearance. What's your destination after that?"*

[AW109 pilot]: *"Inbound to* [destination], [handling agent, AW109 CS]."

1404:44 – [The AW109] left Primary Surveillance Radar (PSR) coverage from both Allanshill and Perwinnes radars as the Mode C indicated the aircraft was descending through 700ft AMSL.

1405:03 – Secondary Surveillance Radar (SSR) contact was lost on the Allanshill radar as the Mode C indicated 300ft.

1405:12 – SSR contact was lost on Perwinnes radar, with the final return prior to fading shown in the screenshot (Figure 1).

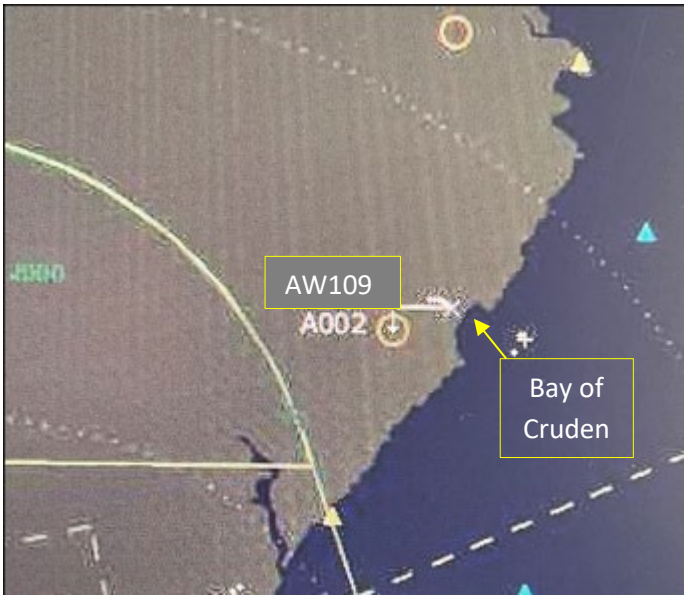


Figure 1 – Time 1405:12

1406:37 – Traffic Information was passed by HELS to the crew of [an unrelated aircraft] as this aircraft would shortly be passing Cruden Bay at 1000ft when inbound to Aberdeen Airport.

1414:45 – [AW109 pilot]: *"Aberdeen,* [AW109 CS] *just lifted from Cruden Bay."*

The pilot had retained the previously allocated Aberdeen SSR code of 4250 and the contact appeared in Perwinnes SSR coverage as the Mode C indicated 500ft (Figure 2) with a PSR contact following a few seconds later (Figure 3).



Figure 2



Figure 3

1415:05 – HELS: *"*[AW109 CS] *squawk ident, report your level on Aberdeen QNH 1014."*

[AW109 pilot]: *"Squawk ident, level 1000ft 1014,* [AW109 CS]." Mode C indicated 700ft and climbing.

HELS: *"*[AW109 CS] *identified, cleared to enter controlled airspace on the Peterhead Lane VFR, not above 2000ft."*

The clearance was correctly read back by the pilot.

Investigation

During the period [the AW109 pilot] was operating in the vicinity of Cruden Bay, including the time the aircraft was believed to be on the ground, no surveillance contacts were visible on the controller's displays in the onshore area immediately around Cruden Bay. Some PSR contacts were intermittently visible in the offshore area at the northern end of the Bay of Cruden itself, but this is an area of frequent PSR clutter, with an example shown in the screenshot at 1405:12 (Figure 1). The behaviour and location of the PSR contacts observed at this time makes them more likely to be radar-system generated rather than indicating the presence of an aircraft.

A site [located approximately 1NM] to the south-southwest of Cruden Bay village is occasionally used by a UAS operator engaged on Beyond Visual Line of Sight (BVLOS) operations. At the time of this event, the UAS operator was engaged in operations [elsewhere] and it is not believed that they had any activity taking place [locally].

With no pilot report being received at the time of the event, and no obvious surveillance contact that could definitely be attributed to an aircraft, the controller and NATS Aberdeen were unaware that an event had occurred until UKAB contacted the unit in mid-July.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the AW109 was positively identified using Mode S data; the drone was not seen. Further analysis of third-party aircraft tracking software was undertaken and the AW109 was detected using ADS-B data sources, the DJI Mavic 3 was not detected. Both the DJI Mavic 3 pilot and the AW109 pilot provided their GPS navigation data. The drone recorded a *'manned flight detected nearby. Fly with caution'* message 22sec before and 23sec after the point at which the drone was lowered. The drone was observed to descend from 300ft to 125ft after autonomous flight was stopped. CPA was assessed to have occurred at 1414:03 with a separation of 340ft vertically and 0.2NM laterally (Figures 4 and 5).



Figure 4 - drone position at 09m 55sec flight-time.



Figure 5 - CPA 1414:03

The DJI Mavic 3 and AW109 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[3] 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.[4]

Summary

An Airprox was reported when a DJI Mavic 3 drone and an AW109 flew into proximity at Cruden Bay at 1414Z on Tuesday 23rd June 2026. The DJI Mavic 3 pilot was operating under VLOS in VMC, and the AW109 pilot was operating under VFR in VMC immediately prior to re-calling Aberdeen HELS for a Traffic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data for the flights of both the DJI Mavic 3 and the AW109, a report from the Aberdeen Radar controller and a report from the appropriate operating authority. 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 considered the actions of the DJI Mavic 3 pilot, and noted that they had been surprised by the appearance of a helicopter departing from a different part of the grounds belonging to the same organisation for which they had been performing their aerial survey. The Board wondered why the drone pilot had not been aware that helicopters could possibly have been operating in that area and members were themselves surprised that this had not been included in the pre-survey risk assessment. Although the Board did not have sight of the risk assessment, members were aware that the drone company's accountable manager had been asked whether other aerial activities had been taken into consideration. One member pointed out that CAP 722[5] specifies that a basic principle of UAS operation is that,

> 'A UA must not be flown if the appropriate safety provisions cannot be made or if such operations would have an unreasonably negative impact on other airspace users.'

and the Board acknowledged that the CAA Specific Category framework, as used by the pilot of the DJI Mavic 3, requires operators to assess the operating environment and identify hazards associated with

[3] (UK) SERA.3205 Proximity.
[4] Assimilated Regulation (EU) 2019/947- UAS.SPEC.060 Responsibilities of the remote pilot (3)(b)
[5] CAP 722 Unmanned Aircraft System Operations in UK Airspace-Policy Guidance – Airspace – 2.3.1 Basic principles

the proposed operation.[6] This would normally include consideration of other airspace users where their presence may reasonably be anticipated. Members noted that, although the CAA Specific Category framework does not require operators to eliminate all risk of interaction with crewed aviation, it does require them to assess the operating environment and establish mitigations proportionate to the risks identified. The Board therefore considered that the operator's pre-flight risk assessment had not adequately accounted for the potential presence of helicopter traffic in the area (**CF1**). Members agreed that, as it was, the pilot of the DJI Mavic 3 had had no situational awareness of the presence of the departing helicopter (**CF2**) and that, although the Mavic's electronic conspicuity equipment had recorded an alert notifying the operator of *'manned flight detected nearby. Fly with caution'* (**CF4**), the alert had gone unnoticed by the Mavic pilot. Nonetheless, members also agreed that the pilot of the DJI Mavic 3 had become concerned by the proximity of the AW109 on first seeing it (**CF6**), and had acted correctly by lowering the drone, away from any possible confliction with the AW109.

The Board then considered the actions of the AW109 pilot, noting that they had been in receipt of a Traffic Service prior to arriving in the vicinity of the landing site and shortly after departing it, but not during the time of the Airprox with the DJI Mavic 3. A member experienced in helicopter operations noted that the pre-flight preparation when landing at such a site would normally include asking the landowner or site manager of other aerial activity, and there was nothing to indicate that the pilot had not done this. However, the Board noted that the circumstances of this Airprox event were unusual, in that it had been likely that the land was managed by two independent parts of the organisation and, because their prime business interests were not airspace use, there was a possibility that nothing had been communicated about the drone operation to the pilot of the helicopter, and that this pre-flight information had been unavailable to the pilot of the AW109 in any case (**CF1**). Members consequently agreed that the pilot of the AW109 had had no situational awareness of the presence of the DJI Mavic 3 (**CF2**). The Board noted that the electronic conspicuity equipment on the AW109 had been unable to detect the drone (**CF3**) and members agreed that the pilot had had no method of having been alerted to the DJI Mavic 3 operating nearby and had not seen it (**CF5**).

The Board briefly considered the input of the Aberdeen Radar controller, thanked them for their report and the ANSP's investigation, and acknowledged that they could neither have been aware of the drone operation nor have been in communication with the AW109 pilot at the time of the Airprox.

In drawing their discussion to a close, the Board agreed that neither the pilot of the DJI Mavic 3 nor the pilot of the AW109 had situational awareness of the other aircraft. Members agreed that safety had been degraded and that the DJI Mavic 3 pilot had followed the correct procedure by lowering their drone and maintaining separation between that and the AW109 and removing any risk of collision. As such, the Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2026121			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
	• Situational Awareness of the Conflicting Aircraft and Action			
2	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			
3	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

[6] Article 11 of UK Regulation (EU 2019/947) Rules for conducting an operational risk assessment.

4	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	
	• See and Avoid			
5	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
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 Assessment[7]

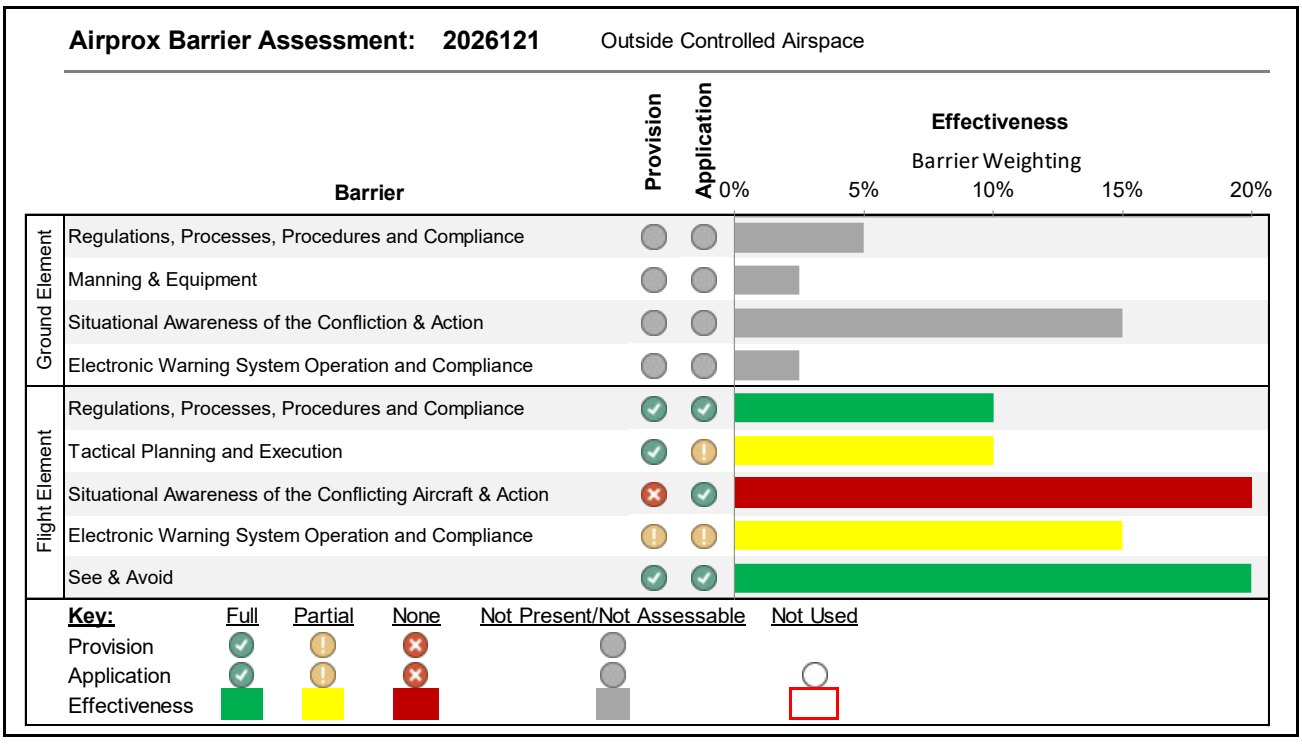
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because both the DJI Mavic 3 and AW109 pilots could have checked with the site manager at Cruden Bay for known aerial activity during their pre-flight preparation.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither the DJI Mavic 3 pilot nor the AW109 pilot were aware of the presence of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **partially effective** because the AW109's electronic conspicuity equipment had not been able to detect the drone.



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