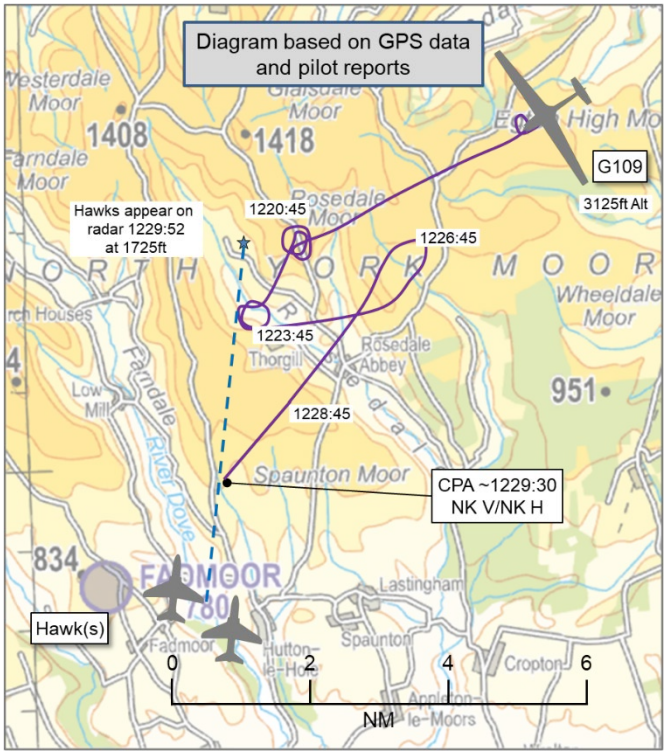
AIRPROX REPORT No 2025067

Date: 29 Apr 2025 Time: ~1230Z Position: 5420N 00056W Location: Spaunton Moor, Yorkshire

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Hawk	G109
Operator	HQ Air (Trg)	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	None
Provider	LL Common	N/A
Altitude/FL	NK	NK
Transponder	A, C, S	Not fitted
Reported		
Colours	Black	White
Lighting	Strobes, nav	Strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	400ft AGL	2000ft
Altimeter	RPS (1021hPa)	QNH
Heading	020°	NK
Speed	420kt	60kt
ACAS/TAS	TCAS I	SkyEcho
Alert	None	None
Separation at CPA		
Reported	~0ft V/2000ft H	Not seen
Recorded	Not recorded	



THE HAWK PILOT reports that, during a 2-ship fighting-wing low-level training sortie, an aircraft that appeared to be a motor glider was spotted as they passed behind it by approximately 2000ft laterally, co-altitude – sub 500ft AGL. The Hawk pilot had made their last call on UK Low Level (LL) Common (130.490MHz) 6min prior to the Airprox, whilst in a similar location in LFA 11. There were no further calls received on LL Common; this is not uncommon. There were no TCAS indications in cockpit throughout. The pilot notes that there had been a more than typical amount of bug splatter forming on the canopy. The LL part of the sortie was discontinued and a climb to medium level initiated. No avoiding action was taken as the G109 had been spotted after having passed.

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

THE G109 PILOT reports that they had not seen the other aircraft.

Factual Background

The weather at Leeming was recorded as follows:

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METAR EGXE 291220Z 16011KT 9999 FEW044 BKN250 22/10 Q1025 NOSIG RMK BLU BLU=
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Analysis and Investigation

UKAB Secretariat

Figure 1: from an ADS-B source (as an MLAT track) - Hawks re-appeared at 1230:00.

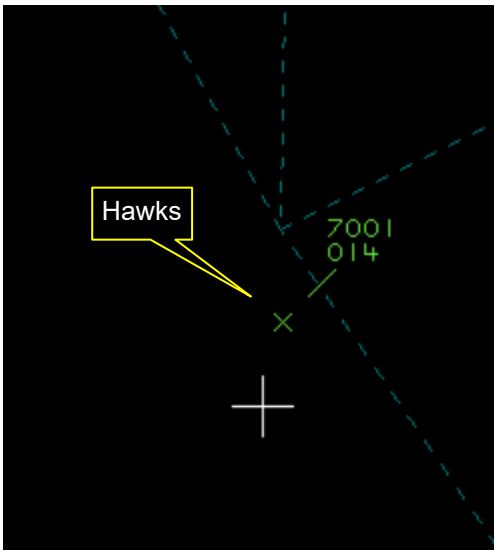

Figure 2: from radar - Hawks re-appeared at 1259:50. White cross marks the CPA.

Figure 3: from the CAA's Airspace Analyser Tool - G109 showed for the last time ~0.5NM short of CPA at 1229:00 at 2800ft (SPS).

The Hawks had been operating in the area and had appeared as intermittent contacts on radar and other tracking systems with the most significant contact at 1229:52 (CPA plus ~22sec). The G109 showed on the CAA's Airspace Analyser Tool (AAT) as an ADS-B return until 1229 (CPA minus ~30sec). Interpretation between the various systems has created the diagram at page 1 and the derived CPA. Unfortunately, no direct comparison of precise position or altitude can be made at CPA.

The Hawk and G109 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] If the incident geometry is considered as converging then the Hawk pilot was required to give way to the G109.[2]

Comments

HQ Air Command

Due to their location and height, the Hawks were operating on Low Level Common and not in receipt of an Air Traffic Service. The Hawks and the Grob 109 were using electronic conspicuity (EC), but unfortunately the systems used on the different aircraft types are not compatible and no EC alert was generated. While the Hawk pilot did sight the Grob 109, it was after CPA and therefore too late to take avoiding action. Having identified that excessive bug splatter may be affecting their lookout, the decision by the Hawk pilot to discontinue the low level element of the sortie was prudent.

BGA

Touring Motor Gliders (TMGs) like the Grob 109 are used by BGA gliding clubs for field landing training, where pilots select, and then fly a circuit to land in, a suitable farm field. This allows pilots of pure gliders to practice procedures to use if unable to find rising air during a cross-country flight. Pilots are trained to always have a land-able area within gliding range, and to be near suitable fields by the time they're descending through 1500ft AGL. A specific field should have been selected and an appropriate circuit planned by 1000ft AGL, with the downwind leg then commencing at about 800ft AGL.

Motor gliders are never intentionally landed in fields during such training; instead, the circuit is broken off and the engine throttled up at a height that satisfies minimum flying height regulations (e.g. not flying closer than 500ft to any person, vessel, vehicle or structure; see SERA.5005 and ORS4/1496). However, in doing so, it should be borne in mind that military low-flying training may be conducted anywhere in the UK outside built-up areas, controlled airspace, Aerodrome Traffic Zones and other sensitive locations. In practice, most military low flying takes place between 250ft and 500ft Minimum Separation Distance (see UK AIP ENR 1.1 §7) at speeds up to 450kt (7.5NM per minute). Hence the pilot of a motor glider climbing away from low level after (for instance) a field landing training exercise would be well-advised to climb above 1000ft AGL as quickly as possible, so as to minimise the risk of encountering fast-moving, low-flying military aircraft.

Summary

An Airprox was reported when a Hawk and a G109 flew into proximity at Spaunton Moor at approximately 1230Z on Tuesday 29th April 2025. Both pilots had been operating under VFR in VMC and neither had been in receipt of a Flight Information Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, limited radar photographs/video recordings, and GPS data, 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 first discussed the actions of the Hawk pilot, noting the nature of their flight and their familiarity with that operating area. Members recognised that their decision to monitor the Low Level (LL) Common radio frequency had been made cognisant of the lack of a robust Flight Information Service (FIS) or LARS (Lower Airspace Radar Service) in that area of hilly, coastal and valley terrain. As mitigation, the respective Hawk crews had carried traffic alerting systems which, in this case, had unfortunately been mutually incompatible with that carried by the G109 (**CF2**). The Board agreed,

[1] (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.
[2] (UK) SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

therefore, that the Hawk pilot had had no situational awareness of the proximity of the G109 (**CF1**) and noted that they had reported as having visually acquired it only as they had passed behind it and had deemed the risk of collision as 'low' requiring no avoiding action.

Turning to the G109 pilot, the Board noted that they reported as not having seen the Hawk at any stage (**CF3**). The pilot reported having been operating in VMC without a FIS or LARS with the same logic applied by the Hawk pilot regarding coverage in that area and at that altitude. Members recognised that the exercises performed by the G109 had led to an unusually low altitude operation for a motor glider and wondered whether monitoring of the LL Common frequency may have enabled a degree of situational awareness of other traffic in their local area. The Board noted that, in this case, although the G109 had carried a commonly utilised electronic conspicuity unit, it had not registered electronic emissions from the Hawk and agreed that it had therefore left the G019 pilot with no situational awareness of the Hawk's presence (**CF1**).

When determining the risk of the Airprox, the Board considered the reports from both pilots together with the limited radar and GPS data available. The G109 pilot reports not having seen the Hawk aircraft and the Hawk pilot noted that they had seen the G109 only as they had passed approximately 600m behind it. Neither pilot had any situational awareness of the presence of the other aircraft ahead of CPA and both had been operating within Class G airspace in good weather conditions; members concluded that this incident constituted 'normal operations' in that environment and served to highlight the need for a continuing good lookout, the carriage and use of a common electronic conspicuity suite and, where possible, utilisation of an Air Traffic Service to help build an air picture. Members agreed that there had been no risk of collision; Risk Category E.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025067			
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	• 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

Degree of Risk: E.

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:

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.

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

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried and utilised by both aircraft had been incompatible with that carried by the other.