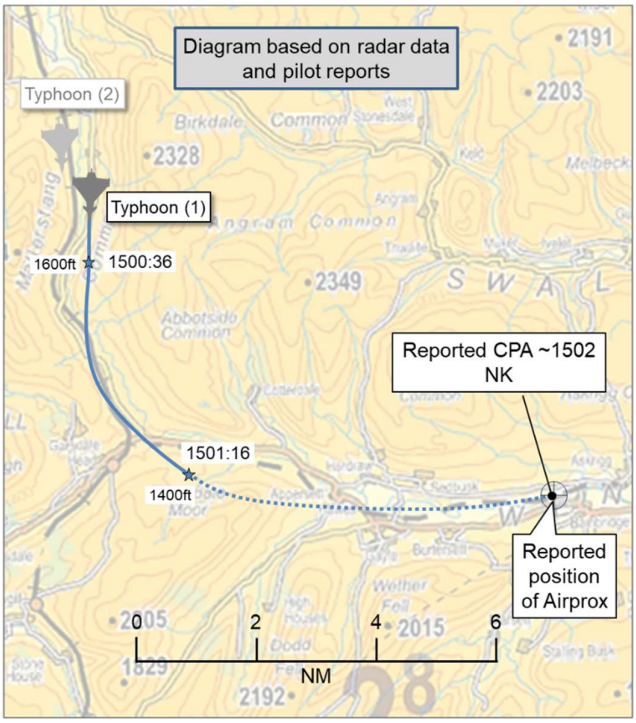
AIRPROX REPORT No 2025251

Date: 16 Dec 2025 Time: ~1502Z Position: 5419N 00207W Location: ivo Bainbridge

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Typhoon(1)	Untraced aircraft
Operator	HQ Air (Trg)	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	Not Known
Service	Listening Out	
Provider	LL Common	
Altitude/FL	NR	
Transponder	A, C[1]	None
Reported		
Colours	Grey	Not reported
Lighting	Anti-colls & nav.	
Conditions	VMC	
Visibility	NR	
Altitude	880ft	
Altimeter	RPS (1007hPa)	
Heading	085°	
Speed	420kt	
ACAS/TAS	Not fitted	
Alert	N/A	
	Separation at CPA	
Reported	500ft V/<0.1NM H	NK
Recorded	NK	



THE TYPHOON(1) PILOT reports that they were conducting a routine training mission which included low level flying. The crews were briefed and authorised by [Typhoon(1) C/S]. CADS was checked prior to [walking out to the aircraft] with no conflictions identified. [The Typhoon pair] entered Low Level [at waypoint] and, after completing a [specified] route, [the formation] headed southeast down the Appleby Valley. They completed multiple calls on the Low Level Common frequency (130.490MHz) throughout their route with their final call prior to the Airprox made at 1500:55. Their 1500:55 call stated that [the formation] was at 250ft approaching 'Mercedes junction'[2] before heading east. At approximately 1501:55, a suspected ultralight passed directly overhead at an estimated 500ft separation in the opposite direction. At the time, they were heading 085° at 330ft AGL (880ft AMSL on 1007hPa), 420kt. No radar situational awareness was available to either themselves or [the pilot of Typhoon(2) C/S]. They [the pilot of Typhoon(1) C/S] became visual as the Airprox [aircraft] passed overhead and made no avoidance manoeuvre. They communicated the confliction to [the pilot of Typhoon(2) C/S] who was approximately 0.7NM in trail of them. [The pilot of Typhoon(2) C/S] became visual with the [Airprox] aircraft after the radio call, and was sufficiently deconflicted to the south of them at 340ft AGL. After the Airprox [the pilots] elected to exit the Low Flying System close to [waypoint] and [continue to destination]. Upon landing, [Typhoon(1) C/S] notified the Squadron duty executive of the Airprox.

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

THE UNKNOWN AIRCRAFT PILOT could not be traced.

[1] The pilot of the lead Typhoon reported operating Modes A,C & S, but Mode S was not detected in the vicinity of the reported Airprox.
[2] 'Mercedes Junction' is a pseudonym for Hawes junction, Moorcock.

Factual Background

The weather at RAF Leeming was recorded as follows:

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METAR EGXE 161450Z 13001KT CAVOK 07/05 Q1011 BECMG 4000 BR RMK BLU BECMG GRN
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Analysis and Investigation

Coningsby Unit Investigation

An Airprox occurred between a Typhoon and Ultralight aircraft in LFA17.

Findings

A civilian ultralight [was operating] Low Level (LL) in LFA17. CADS was checked prior to [the flight] with no conflictions identified. [The Typhoon pair] entered LL in LFA17 and, after completing a route through the Lake District, headed southeast down the Appleby Valley. [The Typhoons] completed multiple calls on the LL Common frequency (130.490MHz) throughout their route with their final call prior to the Airprox made at 1500:55. Their 1500:55 call stated that [Typhoon pair C/S] were at 250ft approaching Mercedes junction before heading east. At approximately 1501:55, a suspected ultralight passed directly overhead [Typhoon(1) C/S] at an estimated 500ft separation in the opposite direction. No radar situational awareness was available to either [Typhoon pilot].

[The Coningsby investigation noted that] robust procedures were already in place. [The Typhoon(1) C/S pilot] became visual as the Airprox aircraft passed overhead and [Typhoon(1) C/S pilot] made no avoidance manoeuvre. [The Typhoon(1) C/S pilot] communicated the confliction to [the pilot of Typhoon(2) C/S] who was approximately 0.7NM in trail of [Typhoon(1) C/S]. [The pilot of Typhoon(2) C/S] became visual with the aircraft after the radio call, and was sufficiently deconflicted to the south of [Typhoon(1) C/S] at 340ft AGL. After the probable Airprox, [the Typhoon pair pilots] elected to exit the Low Flying System close to RAF Leeming and recover to [destination]. Upon landing, [the Typhoon(1) C/S pilot] notified the Sqn duty executive of the probable Airprox who, in turn, notified the [relevant authorities].

[The causal factor noted for this Airprox was stated as], the Typhoon(1) [pilot was] not aware of the ultralight until loss of separation had occurred. It was unknown if the ultralight [pilot] was aware of the Typhoons.

Comments

The Typhoon pilot was asked if the other aircraft could have been a UAS Tutor operating in the vicinity at the same time, [to which they responded,] *"I am confident that the aircraft was not the Tutor as we had comms with the pilot of that aircraft on Low Level common (130.490MHz) throughout. On our entry to LL, we were visually deconflicted by the Tutor pilot who spotted us toward the western end of the Hawes valley after radio calls. On our exit from Low Level we communicated with the Tutor [pilot] again, this time on Leeming approach frequency as the Tutor was operating with them – we also became visual with the Tutor at approximately 3000-4000ft on our climb-out in the vicinity of Leeming – a few minutes after the Airprox."*

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the Typhoon formation was positively identified. Typhoon(2) was detected using Mode S data, and the lead Airprox Typhoon(1) was detected ahead of that using Modes A & C only, just prior to the Airprox. Both Typhoons were seen on radar intermittently and not at the time of the reported Airprox. Their last recorded position prior to the Airprox was at 1501:16 (Figure 1).

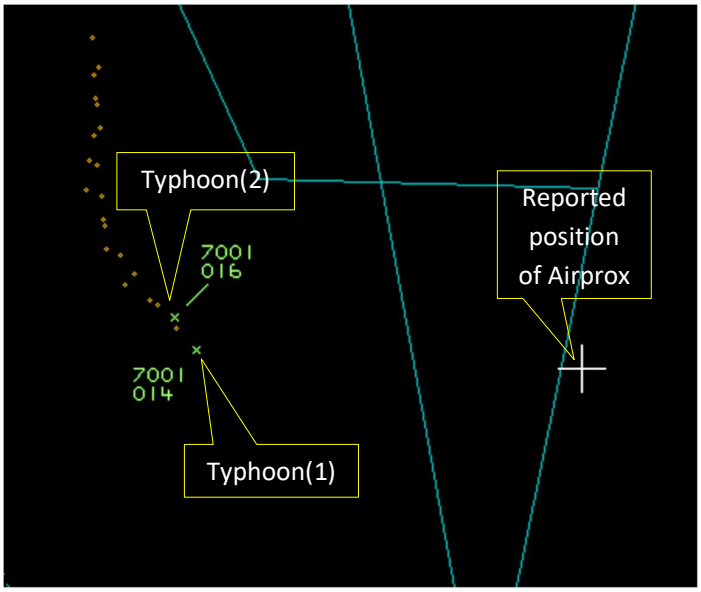


Figure 1 – Time 1501:16

Further analysis of third-party tracking software was undertaken, and neither the Typhoon nor the other, suspected, Airprox aircraft were detected. However, the Typhoon(2) was detected approximately 4min after the Airprox, using MLAT sources only.

The Typhoon and unknown 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.[3] If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.[4]

Comments

HQ Air Command

This incident illustrates the continued operating risk to military crews in unsegregated Class G airspace; the Typhoon pilots had taken every precaution to deconflict their flight from other airspace users and were using all onboard systems available to try to detect possible conflicts, but still only detected the microlight aircraft at a range where it was not possible to take avoiding action. The investigation conducted by RAF Coningsby safety staff has been thorough and it is unfortunate that the pilot of the microlight could not be traced to obtain their version of events. It is not known why the lead Typhoon(1) could not be detected via Mode S.

AOPA

It is recommended that, whilst flying in this area, the Low Level Common frequency is used to enhance everyone's situational awareness. It is not known if the untraced aircraft pilot had access to CADS, was listening out on the Low Level Common frequency or aware of the Typhoons as they flew underneath.

Summary

An Airprox was reported when a Typhoon and an unknown aircraft flew into proximity in the vicinity of Bainbridge at approximately 1502Z on Tuesday 16th December 2025. The Typhoon(1) pilot was operating under VFR in VMC, broadcasting and listening out on the Low Level Common frequency, and the unknown aircraft pilot could not be traced.

[3] (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.
[4] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on. MAA RA 2307 paragraph 13.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the Typhoon pilot, radar photographs/video recordings, 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 discussed the actions of the Typhoon pilot, noting that correct procedures had been followed, which had included the making of informative calls on the VHF Low Level (LL) Common frequency and having communicated with another light aircraft in the vicinity. Members noted that, as the Typhoon pair had followed Appleby Valley southbound and then continued to the east, the lead pilot had seen a small aircraft pass overhead and in the opposite direction. The Board agreed that the Typhoon pilot, having had no radar or R/T notification on the LL Common frequency from the other aircraft pilot, had had no situational awareness of the other unknown aircraft's position (**CF1**), and that having seen it only as it passed overhead and too late to have taken any action to have increased separation had effectively constituted a non-sighting (**CF2**).

The Board noted their disappointment that the pilot of the unknown aircraft remained untraced, and members agreed that this event highlights the importance for GA pilots to understand the concept of military low level flying. To that end, the Board wished to highlight to all pilots CAA Safety Sense Leaflet 18 – Military Low flying[5], and the use of the LL Common frequency[6] when navigating areas where military aircraft are likely to be operating. Members considered that light aircraft pilots seen to be making use of such areas and potentially conflicting with military operations was happening more regularly now, and the Board was keen for GA pilots to remain informed and practice effective Threat and Error management (TEM) when operating in such areas. Members noted that, had the pilot of the unknown aircraft made calls on the LL Common frequency, this may have enhanced both their own and the Typhoon pilot's situational awareness. Although the Board agreed that, under the circumstances, it could not be known if the pilot of the unknown aircraft had been aware of, or seen, the Typhoons, or whether a call on Low Level Common frequency would have been heard due to the surrounding terrain potentially inhibiting VHF radio signals at low level.

In determining a Risk Category for this Airprox, the Board deemed it to have been fortuitous that the Typhoon and the unknown aircraft had been able to pass without the pilots having had to initiate avoiding action. However, members noted that the reported vertical separation had been in the order of 500ft and therefore agreed that, although safety had been degraded, there had been no risk of collision. As such, the Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025251			
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
	• See and Avoid			
2	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: C.

[5] SafetySense Leaflet 18

[6] eAIS Package United Kingdom ref: GEN3.4 Communication and Navigation Services, para 3.2.5 VHF Low Level Common Frequency for use within the UK Low Flying System (UKLFS).

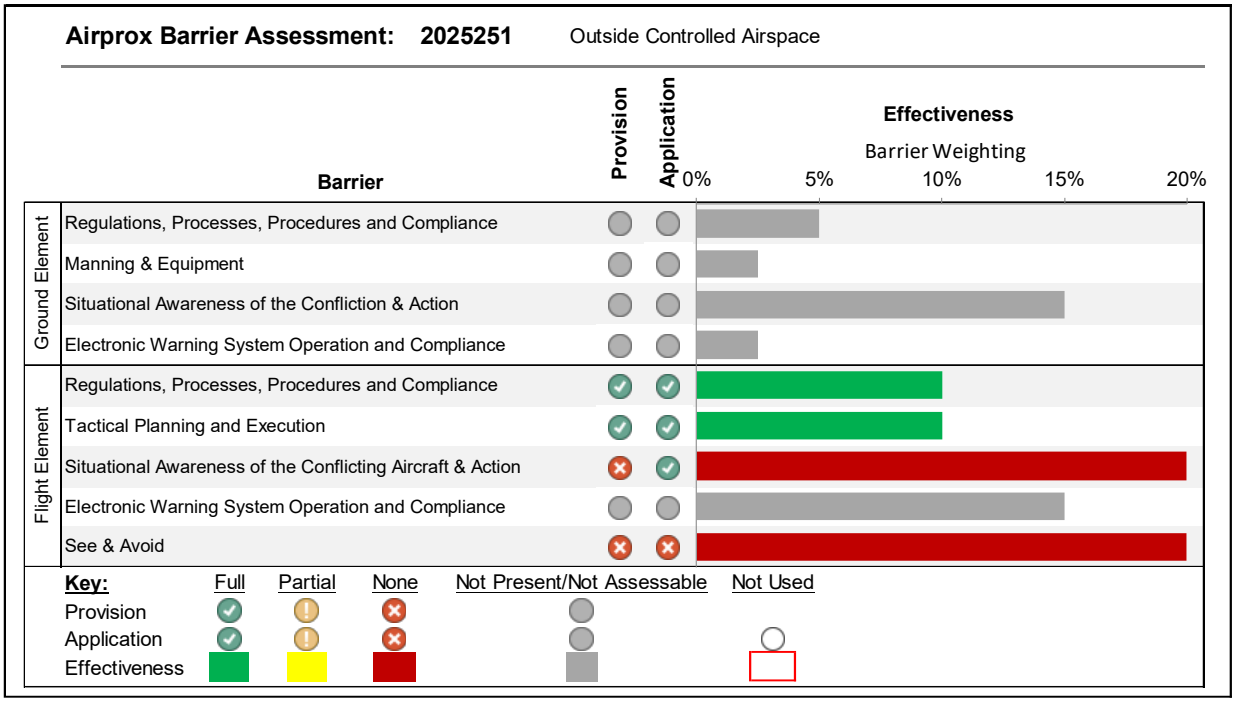
Safety Barrier Assessment[7]

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

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Typhoon(1) pilot had no situational awareness of the presence of the unknown aircraft.

See and Avoid were assessed as **ineffective** because the Typhoon pilot did not visually acquire the unknown aircraft until it had been too late to materially increase the separation between the aircraft.



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