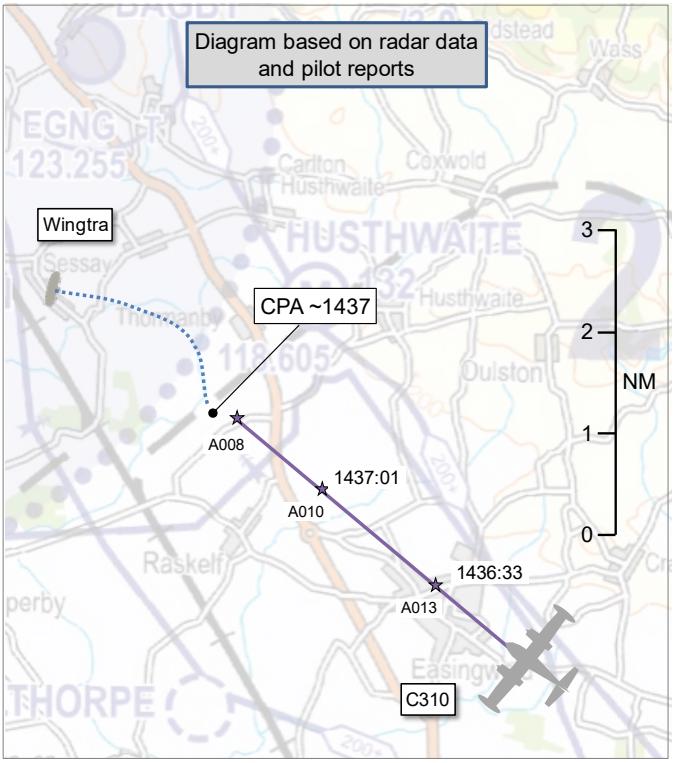
AIRPROX REPORT No 2023245

Date: 23 Oct 2023 Time: ~1437Z Position: 5409N 00115W Location: 2.5NM NW Easingwold

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Wingtra	C310
Operator	Civ UAS	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VLOS	VFR
Service	None	Unknown
Provider	N/A	NK
Altitude/FL	NK	800ft
Transponder	Not fitted	A, C
Reported		
Colours	Orange	Blue, White
Lighting	Nav lights	NR
Conditions	VMC	VMC
Visibility	5-10km	>10km
Altitude/FL	381ft AGL	1500ft
Altimeter	RPS	NK
Heading	360°	NK
Speed	32kt	150kt
ACAS/TAS	Other	Not fitted
Alert	None	None
Separation at CPA		
Reported	50-100ft V/<100ft H	1000ft V/NK H
Recorded	NK V/NK H	



THE WINGTRA PILOT reports they were completing a mapping flight with the fixed-wing drone. Not long after take-off, on the 5th flight of that day, they heard the rumble of engines but could not see an aircraft. Local farm machinery was operating, and for a couple of minutes they assumed that this was the source of the noise. Their observer spotted the aircraft and they moved quickly to a position to assess their next step and, as the aircraft appeared, it had passed very close and possibly as low as 300ft. As they changed their position it became clear that, although the aircraft was close, it would not [collide with the Wingtra]. They let the drone continue its flight. The aircraft appeared [to be] below the drone but it was difficult to tell. They were using ADS-B data to check on aircraft in the area (this aircraft did not appear on this). They had notified the RAF low flying service [sic], RAF flight training school, and local airfields before taking off. Although overcast the cloud base was not that low, it seemed to be well over 3000ft, in fact they had watched an RAF aircraft going through patchy cloud at several thousand feet not too long after this.

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

THE C310 PILOT reports the flight was a routine positioning flight between their base and [destination]. Their recollection was that it had been conducted between 1200ft-1500ft until they commenced descent for [the destination]. They could not remember the flying conditions but they were not 2-way with [a service requiring a squawk] as they only had a 7000-conspicuity squawk on.

The pilot had not seen the other aircraft and was unable to assess the risk of collision.

Factual Background

The weather at Leeming was recorded as follows:

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METAR EGXE 231420Z 36003KT 4000 BR FEW010 OVC012 10/09 Q1008 BECMG 8000 BR RMK GRN
BECMG GRN
METAR EGXE 231450Z 32003KT 4000 BR SCT008 OVC014 10/09 Q1008 BECMG 8000 BR RMK GRN
BECMG GRN
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Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. The WinRAR was not observed on radar at any point. The C310 was seen on radar flying towards the reported position of the Wingtra (Figure 1).

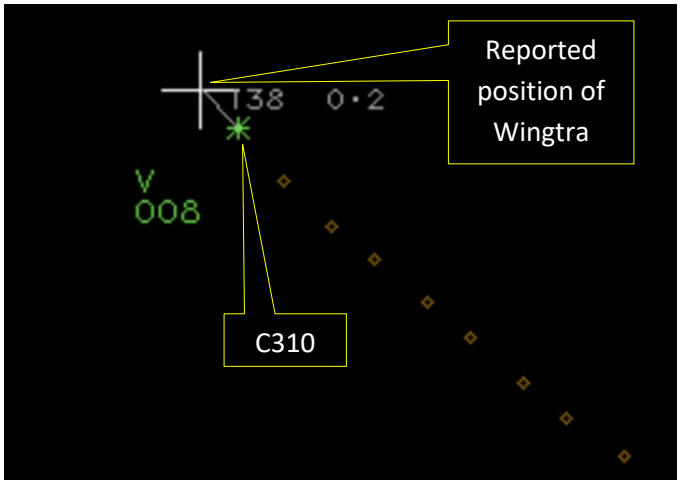

Figure 1: ~1437

The Wingtra and C310 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]

Summary

An Airprox was reported when a Wingtra and a C310 flew into proximity 2.5NM northwest of Easingwold at around 1437Z on Monday 23rd October 2023. The Wingtra pilot was operating under VLOS and not in receipt of an ATS; the C310 pilot was operating under VFR in VMC and their communication with an ANSP was unverified.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs. 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 C310 pilot, and thought that the aircraft had been at a reasonable altitude in that area for the descent to their destination. Members noted that the pilot had likely not been in receipt of an ATS due to their needing to communicate with their destination airfield, and that they had not received any information on the drone operation. The Board agreed, therefore,

[1] (UK) SERA.3205 Proximity.
[2] Regulation (EU) 2019/947 as retained (and amended in UK domestic law) Under the European Union (Withdrawal) Act 2018 - UAS.SPEC.060 Responsibilities of the remote pilot (2)(b).

that the C310 pilot had not had any situational awareness of the presence of the Wingtra (**CF1**) and neither had they sighted it (**CF2**).

Turning their attention to the actions of the Wingtra pilot, members agreed that by notifying local airfields and the RAF low flying coordination cell they had achieved what had been required of them. Members were concerned, however, that the operator appeared to have been working close to the approach area of a local airfield that had likely not provided an ATS at the time and would therefore have been unable to warn arriving pilots of the local drone operation. Some members were also concerned about the operator's and observer's view when first noticing the C310, although this was not considered to be a factor as they had also been using an ADS-B tracker, although the Board noted that this equipment had not assisted them on this occasion. Therefore, the Board agreed that the Wingtra pilot had achieved a late sighting on the C310 (**CF1**) and had decided that it had not been necessary to take evasive action, although the proximity of the C310 had initially given them cause for concern (**CF3**).

Further discussion ensued about the use of NOTAMs to alert pilots of crewed aircraft to drone operations. It was confirmed that the operation of drones and remotely piloted aircraft flying under Visual Line Of Sight (VLOS) rules below 400ft above ground level is not deemed to be unusual aerial activity and therefore is not usually subject to NOTAM action. However, there can be instances where a NOTAM is appropriate (such as flying near a hospital or a helicopter landing site) or where an operator may wish to fly with a NOTAM in place.[3] The Board agreed that, although both pilots had prepared their flights correctly, this would be a timely reminder for all airspace users to be mindful of the potential of encountering drone activity below 400ft AGL anywhere in Class G airspace.

Turning to the risk involved in this Airprox, members assessed that safety had been degraded, although the Wingtra pilot had been able to monitor the situation and avoid coming into close proximity with the C310 by continuing with their flight, thereby removing any risk of collision; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023245			
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
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: C.

Safety Barrier Assessment[4]

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

Flight Elements:

[3] Notifying airspace users of drone and remotely piloted events or activity | Civil Aviation Authority (caa.co.uk)
[4] The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Wingtra pilot had acquired late situational awareness of the C310, and the C310 pilot had no awareness of the presence of the Wingtra.