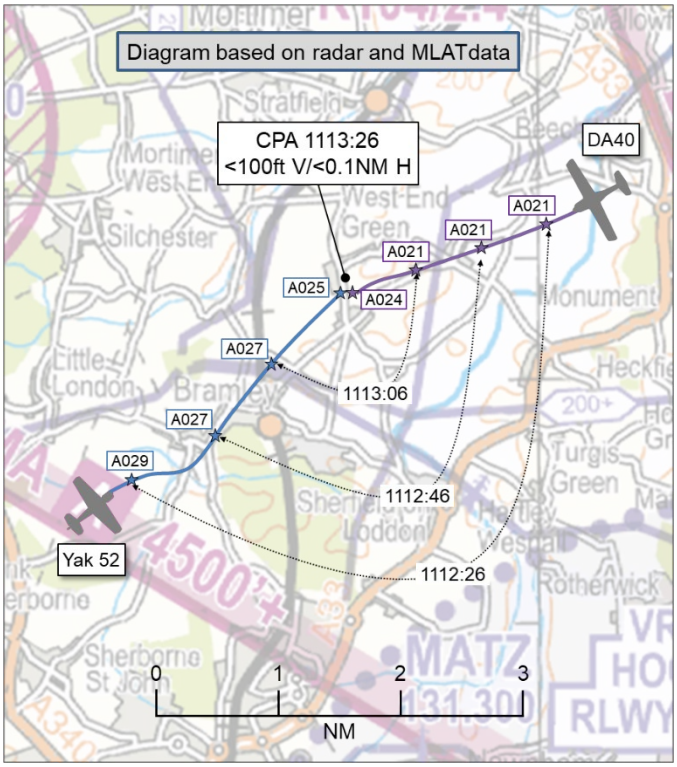
AIRPROX REPORT No 2025062

Date: 01 May 2025 Time: 1113Z Position: 5121N 00103W Location: 1.3NM NNE of Bramley

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Yak 52	DA40
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Listening Out
Provider	Waltham Radio	Farnborough
Altitude/FL	2500ft	2400ft
Transponder	A, C, S	A, C, S+
Reported		
Colours	Green camouflage	White
Lighting	Nil	Strobes, nav & ldg
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2300ft	2300ft
Altimeter	QNH (1018hPa)	QNH (1017hPa)
Heading	090°	240°
Speed	140kt	110kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	10ft V/100m H	0ft V/200m H
Recorded	<100ft V[1]/<0.1NM H	



THE YAK 52 PILOT reports that they were returning to White Waltham after a flight to the west. They were monitoring Waltham Radio and the aircraft was first sighted to their right 2 o'clock position, opposite direction, same level. Neither aircraft took avoiding action as there was too high a closure rate to react and they were possibly not seen by the other [pilot].

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

THE DA40 PILOT reports that they were climbing out from [departure airfield] to a training area south of Newbury. The student was conducting a checklist at the time of the Airprox with the instructor unable to see [the Yak] until it was passing the nose on the right side of the aircraft. Their aircraft was in a slightly nose-high attitude, making visibility out the front degraded and, on review, it looked like the other aircraft was descending. A slight deviation of heading to the left was made once [the other aircraft was] sighted although, by that time, the other aircraft was flying away from their current position.

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

THE WHITE WALTHAM AIR/GROUND OPERATOR reports that they had no record of an Airprox being called on their frequency, but confirmed that the Yak 52 pilot had operated from White Waltham on that day.

Factual Background

The weather at RAF Odiham was recorded as follows:

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METAR EGVO 011150Z 13003KT CAVOK 25/09 Q1016 NOSIG RMK BLU BLU
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[1] Analysis of MLAT data sources indicated approximately 75ft vertical separation.

Analysis and Investigation

The Farnborough ATC Incident Investigator reports that the Farnborough radar and R/T recordings at the time of the reported event showed the [DA40 C/S] change from the VFR conspicuity code 7000 to the LARS West Frequency Monitoring Code 4572 as the aircraft passed [Yak 52 C/S], which was displaying Mode A 7000.

Neither pilot had requested nor was in receipt of a service from Farnborough prior to the event and there was no subsequent report identified on the recordings.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were positively identified using Mode S data. CPA was assessed to have occurred at 1113:26 (Figure 1).

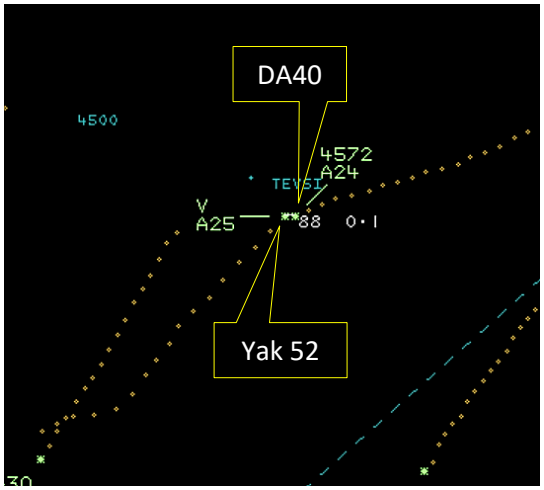


Figure 1 Time 1113:26

Further analysis of MLAT data sources were undertaken to review vertical separation and combined with the radar data. The aircraft were seen to pass to the right of each other by less than 0.1NM with the DA40 in the climb approximately 75ft lower than the Yak 52. The DA40 was seen to turn slightly left 1sec after CPA.

The Yak 52 and DA40 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[2] If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.[3]

Summary

An Airprox was reported when a Yak 52 and a DA40 flew into proximity 1.3NM north-northeast of Bramley at 1113Z on Thursday 1st May 2025. The Yak 52 pilot was operating under VFR in VMC listening out on Waltham Radio, and the DA40 pilot was operating under VFR in VMC listening out on Farnborough Radar.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, MLAT-derived navigation data, a report from the Waltham Air/Ground Operator and a report from the Farnborough ATC Incident Investigator. 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.

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

The Board first considered the actions of the Yak 52 pilot, and noted that they had been returning to White Waltham, on an approximate northeasterly heading, and that they had had the Waltham Radio frequency preselected at the time of the Airprox, 13NM from the airfield. The Board felt that it had perhaps been slightly too soon for the pilot to have been in communication with the Waltham Air/Ground Operator and noted that the pilot had only been monitoring the frequency at that stage of their flight. Members agreed that it may have been prudent for the Yak 52 pilot to have been in receipt of a surveillance-based service from Farnborough prior to returning to the Waltham frequency (**CF1**). The Board considered that, had the pilot been in receipt of a surveillance-based service, they may have benefitted from an enhanced opportunity of having improved their situational awareness but, as it was, the pilot had had no situational awareness of the presence of the DA40 (**CF2**). Members further agreed that the Yak 52 pilot, whilst in a descent, had not seen the DA40 climbing ahead of, and beneath them, effectively a non-sighting (**CF3**).

Turning their attention to the actions of the DA40 pilot, the Board noted that they had been climbing away from their departure airfield which was approximately 7.5NM east-southeast of the Airprox event. The Board further noted that the pilot had changed to the Farnborough West listening squawk as they had passed the Yak and wondered if the radio frequency and transponder code changes had been a distraction from the pilot's lookout. Although members could not be sure that this had been the case, the Board reiterated the importance of breaking tasks into manageable portions in order to achieve a continuous lookout, without spending too much time with 'eyes-in' the aircraft. Nonetheless, members noted that the task may have been achieved sooner and the Board agreed that it may have been prudent for the DA40 pilot to have selected a surveillance-based service from Farnborough instead of simply monitoring the frequency (**CF1**). The Board further agreed that, without any information available to them, the DA40 pilot had had no situational awareness of the presence of the Yak 52 (**CF2**). Members further discussed the view from the DA40 during the climb, and some members thought that the high nose attitude during the climb may have hindered the pilot's lookout. However, on checking the DA40's track it appeared to have remained level briefly at 2100ft 1min before CPA, and members considered that may have been part of the pilot's scanning process before having recommenced their climb towards the unseen descending Yak 52. Members agreed that the DA40 pilot had not seen the Yak 52 until at or about CPA, effectively a non-sighting (**CF3**).

The Board reviewed the reports from the Waltham Air/Ground Operator and the Farnborough ATC Incident Investigator, thanking them both for the information provided and assistance with the Airprox reporting process. Members agreed that neither unit had been directly involved in this Airprox event.

Drawing the conversation to a close, and in assessing the risk categorisation for this Airprox, the Board noted that neither pilot had been in receipt of a surveillance-based service, neither had had situational awareness of the presence of the other, and neither the Yak 52 pilot nor the DA40 pilot had seen the other aircraft until at or after CPA. Members agreed that separation had been reduced to a bare minimum, providence had played a major part in the event and that there had been a serious risk of collision (**CF4**). As such, the Board assigned a Risk category A to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025062			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Tactical Planning and Execution			
1	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
	• 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
	• 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
	• Outcome Events			
4	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: A.

Safety Barrier Assessment[4]

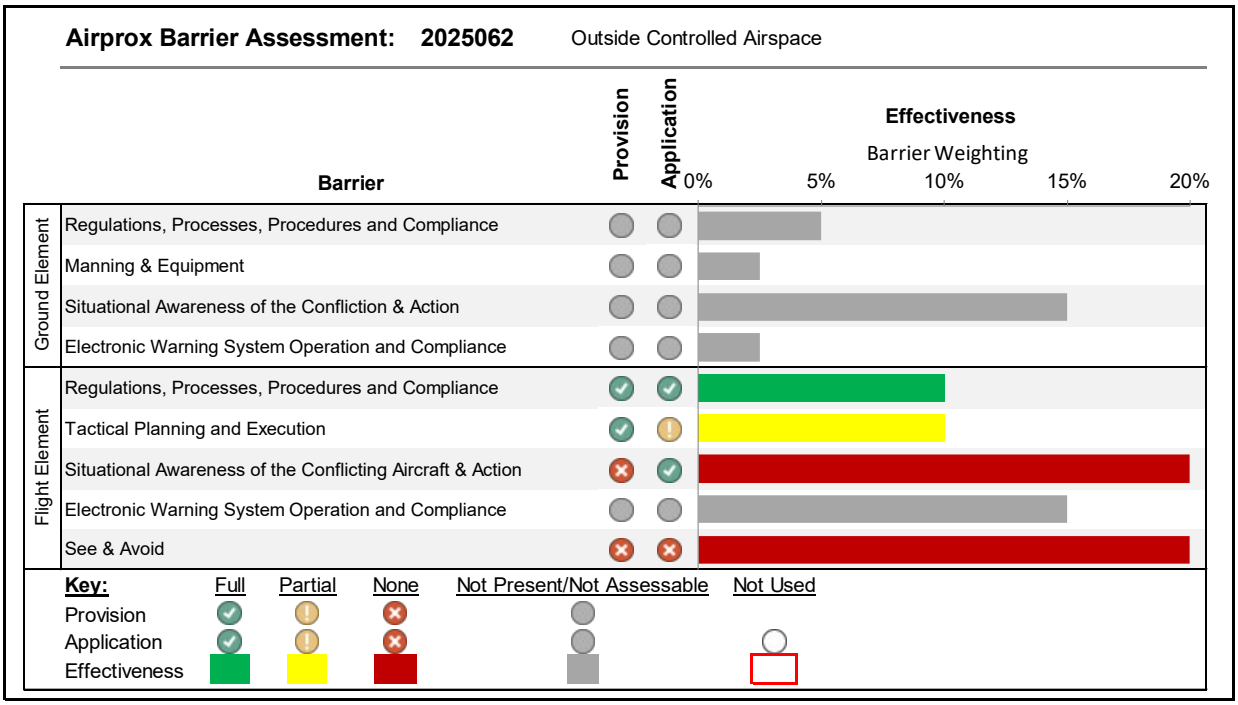
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because neither pilot had been in receipt of a surveillance-based service where one had been available.

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

See and Avoid were assessed as **ineffective** because neither pilot had seen the other aircraft until at or about the point of CPA.



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