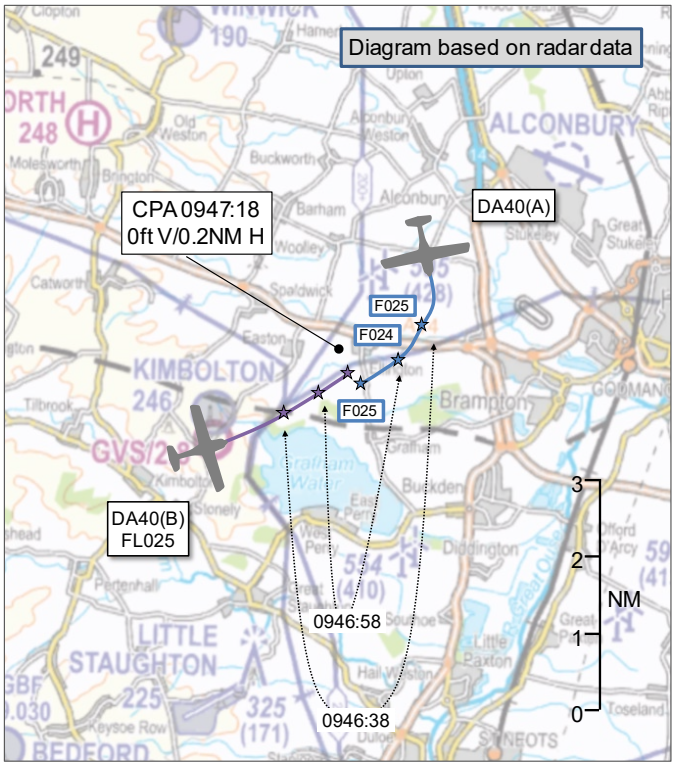
AIRPROX REPORT No 2025047

Date: 08 Apr 2025 Time: 0947Z Position: 5219N 00018W Location: IVO Grafham Water

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DA40(A)	DA40(B)
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None[1]
Provider	Cranfield	N/A
Altitude/FL	FL025	FL025
Transponder	A, C, S+	A, C, S+
Reported		
Colours	White	White
Lighting	Nav, Strobes, Landing	Landing, Taxy, Nav, Strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2500ft	2900ft
Altimeter	QNH (1028hPa)	QNH (1028hPa)
Heading	240°	Northeast
Speed	120kt	110kt
ACAS/TAS	TAS	TAS
Alert	Information	Information
Separation at CPA		
Reported	100ft V/0.3NM H	NK V/>1NM H
Recorded	0ft V/0.2NM H	



THE DA40(A) PILOT reports that, while carrying out a general handing exercise in the Grafham Water area, they received a traffic alert from the TAS onboard the aircraft. The initial traffic was straight ahead, slightly higher than them. In response, they instructed the trainee to turn right. At that point the traffic was not a threat. Immediately after the turn they received another alert, this time to the right of them. They looked right and saw a DA40 flying within half a mile, opposite direction and slightly lower, they kept that traffic in sight while it passed, keeping in mind the other traffic to the left which was no longer in sight. On checking their booking system and ADS-B Exchange they confirmed that the aircraft was a company DA40.

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

THE DA40(B) PILOT reports that, while on a nav route tracking from Olney towards Chatteris, a traffic alert came up from the TAS but traffic was not yet in sight. To the right, there was another aircraft in sight which looked stalled and moving very slowly. Based on the TAS, the aircraft which presented a threat was still tracking in the same direction and in order to avoid being on the same track, they moved their aircraft to the left off the track of the other aircraft because of the third aircraft which was stalled and in sight. Based on that, any potential collision was avoided successfully. It happened to be a company aircraft which was sighted passing to the right and above. As a measure of safety, a traffic avoidance manoeuvre had to be done to avoid any potential collision.

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

[1] The pilot reported being on the Cranfield frequency, but Cranfield confirmed that they had left the frequency 2min before the Airprox. A Wittering squawk was not applied until 0952:48, 5min after the Airprox.

THE CRANFIELD CONTROLLER reports that on return to work, they were made aware of an Airprox that happened a week earlier. They had no recollection of a report being made on frequency.

Factual Background

The weather at Cranfield was recorded as follows:

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METAR EGTC 080920Z 07005KT 360V110 CAVOK 09/04 Q1028=
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Analysis and Investigation

Cranfield Investigation

Both aircraft were conducting local flights from Cranfield to Cranfield. DA40(A) left the APP frequency at 0900 for Wittering and reported back on frequency at 0929, when they were issued with a Basic Service and the Cranfield QNH - they made no position report until they were at a VRP for re-join.

DA40(B) left the APP frequency for Wittering at 0945 and was not in receipt of a service from Cranfield at the time of the Airprox.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. Both aircraft could be identified using Mode S data. At Figure 1, DA40(A) can be seen indicating FL026, heading south and DA40(B) indicating FL025 heading northeast. The third aircraft mentioned by both pilots can also be seen at a similar level.

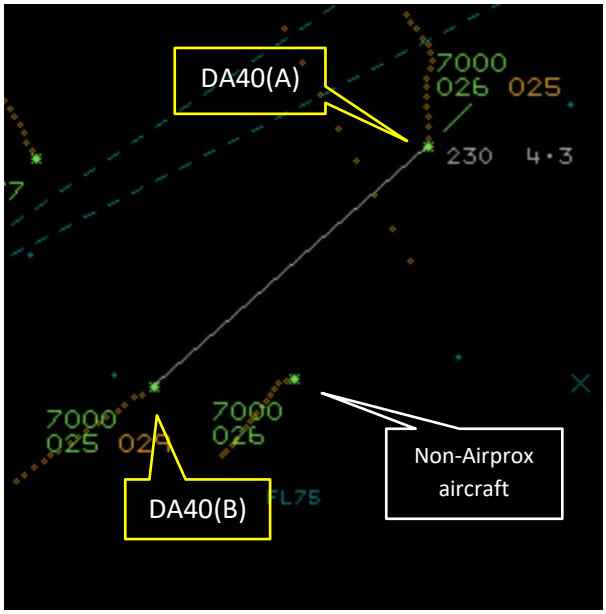


Figure 1 - 0946:09

At Figure 2, the DA40(A) had turned onto a south-westerly heading, as described by the pilot in their report, to avoid the manoeuvring aircraft, the two DA40s were now 2.6NM apart and on reciprocal headings.

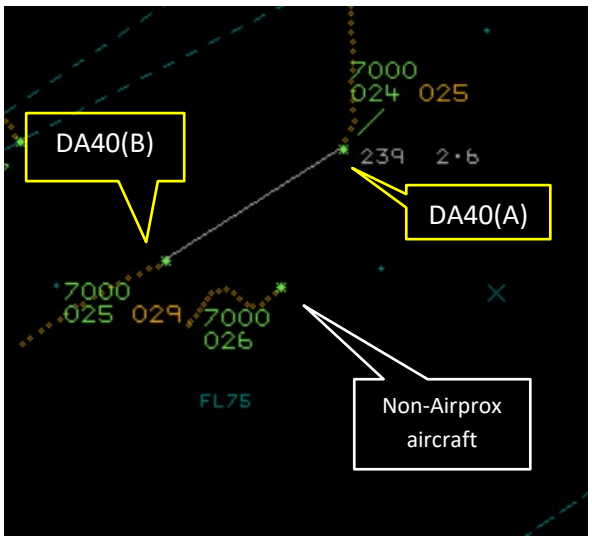


Figure 2 – 0946:38

The two aircraft continued to close until CPA at 0947:18 when they were 0.2NM apart, both aircraft indicated FL025.

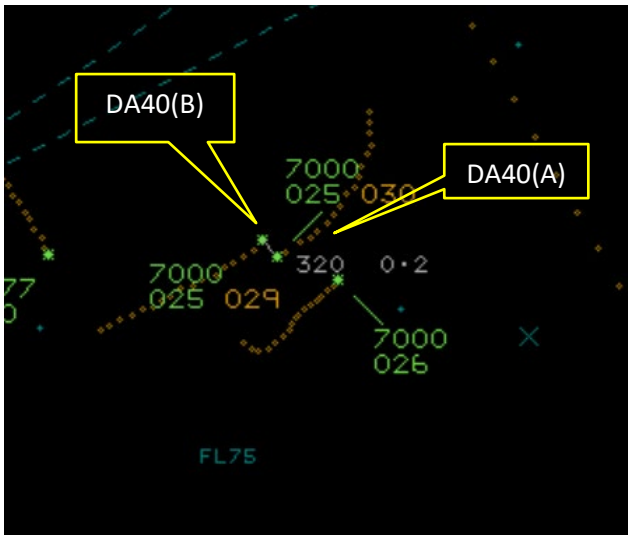


Figure 3 – CPA 0947:18

The DA40(A) and DA40(B) 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 DA40(A) and DA40(B) flew into proximity in the vicinity of Grafham Water at 0947Z on Tuesday 8th April 2025. The DA40(A) pilot was operating under VFR in VMC in receipt of a Basic Service from Cranfield and the DA40(B) pilot was operating under VFR in VMC not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs and a report from the air traffic controller involved. Relevant contributory factors mentioned during the Board's discussions are

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

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 DA40(A) pilot. They had been receiving a Basic Service from Cranfield, although given that Cranfield was not equipped with any surveillance equipment, they would have been unlikely to have received any Traffic Information from them, other than generic information based upon pilots' position reports. However, members agreed that they had received some situational awareness on the presence of the DA40(B) from their TAS (**CF3**). This had alerted them to the position of DA40(B) and also to another aircraft manoeuvring to the south of their position. The DA40(A) pilot had changed heading to go between the two contacts and had then become concerned by the position of the DA40(B) as they had been positioned between the two aircraft (**CF4**). Members commended the pilot for taking action based on the TAS information, but opined that, additionally, the pilot might have considered altering their altitude as well, to ensure some vertical separation (**CF2**).

Turning to the actions of the DA40(B) pilot, the Board noted that they had left the Cranfield frequency but, being on the edge of Wittering's coverage, had not yet called them for a service. They had also received situational awareness about the DA40(A) from their TAS (**CF3**). Again, they had been aware of the third aircraft, both from the TAS and they had sight of it, and so they had opted to turn left to remain clear of both aircraft. Although they had not been concerned by the proximity of the DA40(A), still members thought that they could have altered their altitude for further vertical separation (**CF2**).

The Board briefly discussed the role of ATC. Cranfield operates without a surveillance equipment and so, although they had been providing a Basic Service to the DA40(A) pilot, because the DA40(B) pilot had left the frequency, they had no way of knowing how close the two aircraft had been and so could not have provided any Traffic Information (**CF1**). Members noted that the area that the DA40s had been operating in was effectively a 'black hole' for LARS, in that there was no obvious unit to call, it being on the edge of radar cover for all LARS providers, making it difficult for pilots to receive a suitable surveillance-based service.

When determining the risk of the Airprox, the Board considered the reports from both pilots together with the radar replay screenshots. Both pilots had received information on the other from their respective TAS equipment and both had taken action to remain clear, and some members opined that this could have been considered to have been normal operations in Class G airspace. However, others countered that the separation after avoiding action could be considered to be closer than desirable and that the DA40(A) pilot had been squeezed between two aircraft with little room for manoeuvre, and thus thought that safety had been degraded. The Chair put it to a vote and the latter view prevailed; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025047			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
	Flight Elements			
	• Tactical Planning and Execution			
2	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
	• Electronic Warning System Operation and Compliance			
3	Contextual	• Other warning system operation	An event involving a genuine warning from an airborne system other than TCAS.	
	• See and Avoid			

4	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]

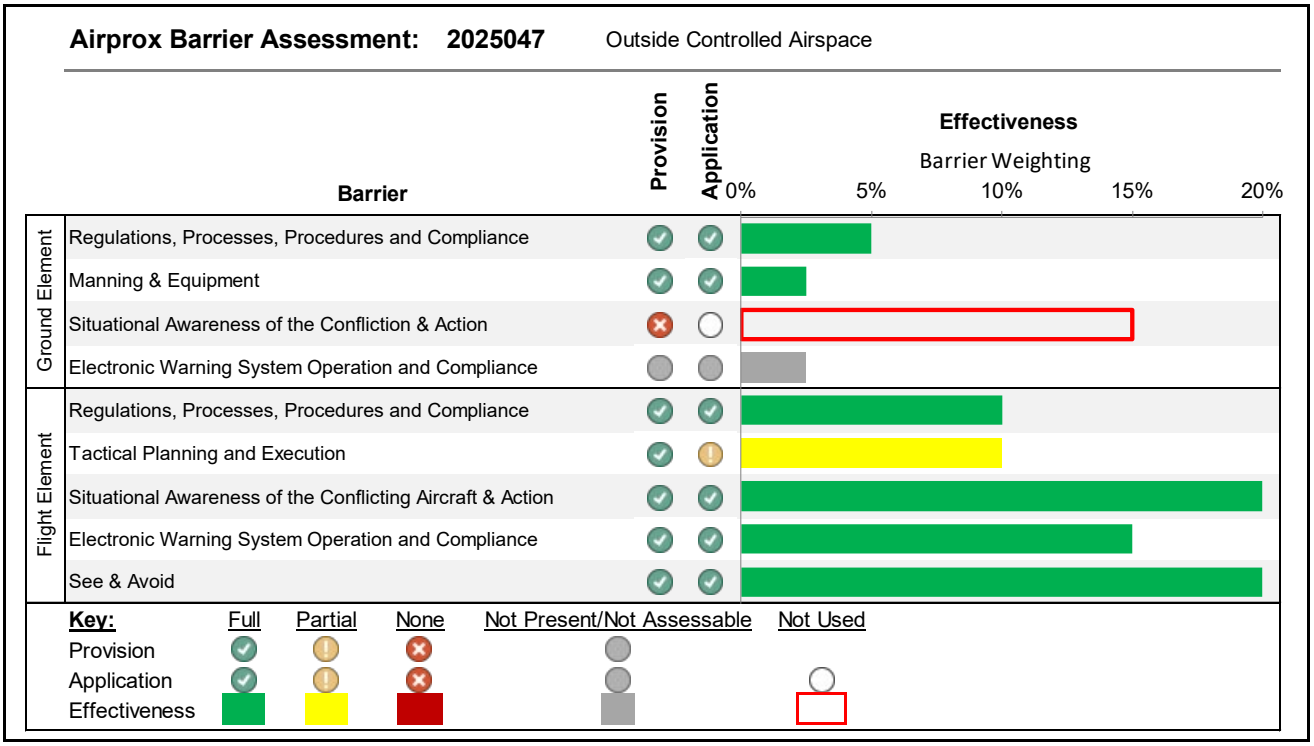
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because Cranfield was not required, and did not have the equipment, to monitor the DA40(A) receiving a Basic Service.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because, in addition to making a heading change, either pilot could have adjusted their altitude in response to the TAS warnings.



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