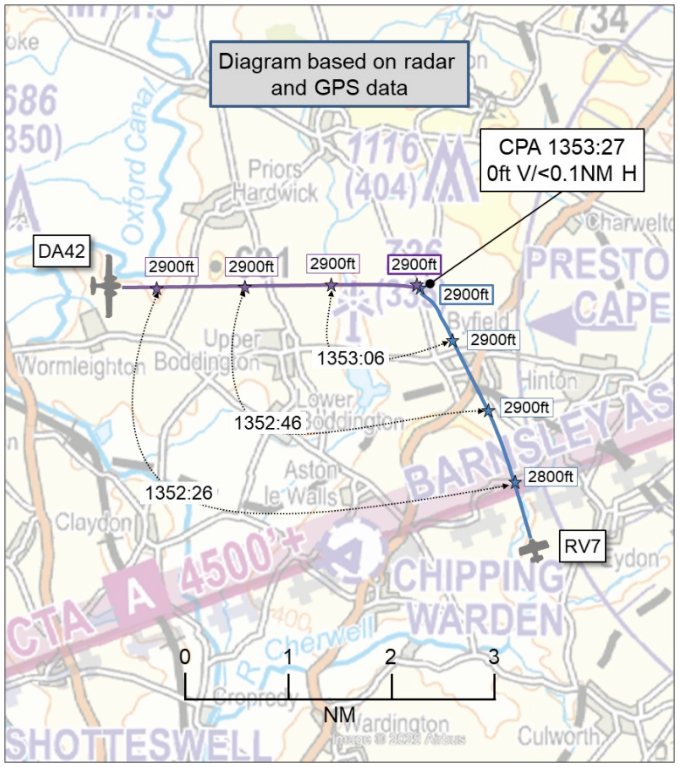
AIRPROX REPORT No 2025162

Date: 30 Jul 2025 Time: 1353Z Position: 5211N 00116W Location: 1NM NNW Byfield Daventry

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	RV7	DA42
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Birmingham Rdr	Wellesbourne Info
Altitude	2900ft	2900ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White/Blue	White
Lighting	NR	Strobes, taxi, land
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2900ft	3000ft
Altimeter	QNH (1019hPa)	QNH (1018hPa)
Heading	330°	092°
Speed	150kt	140kt
ACAS/TAS	SkyEcho	Not fitted
Alert	None	None
Separation at CPA		
Reported	100ft V/50m H	50ft V/500m H
Recorded	0ft V/<0.1NM H	



THE RV7 PILOT reports that once clear of Turweston they contacted Birmingham Radar requesting a Basic Service and entry into their zone. They were given a squawk code and cleared into the zone not above 2000ft. They had just commenced a descent when they saw the approaching aircraft. It appeared that it was going to pass above them. Approximately 3sec later they passed in front and below the DA42. Just as they passed the aircraft, the radar controller advised them of an aircraft similar level at 0.5NM. [The pilot] informed the [controller] that they believed they had just passed that aircraft.

They further reported that they first saw the other aircraft in their 11 o'clock and slightly above them at approximately 0.25NM and 315°, after which they started to increase their descent rate, but it had already passed before this had any real effect.

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

THE DA42 PILOT reports they were examining another pilot to renew their MEIR on their way to [destination] and [the other pilot] was setting up the approach before switching to [that frequency]. They looked at what [the other pilot] was doing before they continued their lookout, where they saw a fast-approaching RV just slightly below and at about their two o'clock position. They took control from the student and pulled up smoothly to avoid a collision. The RV maintained heading, speed and altitude.

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

THE BIRMINGHAM RADAR CONTROLLER reports that, when [the RV7 pilot] called for a zone transit, they identified the aircraft using a local squawk and issued the pilot with a Basic Service which they read back. They were also issued a zone transit clearance. While still outside controlled airspace, there was an unknown aircraft to the west of [the RV7] (not on their frequency) converging at the same

level. They passed this information to [the RV7 pilot] and they reported seeing the aircraft. [The RV7 pilot] continued to [their] destination and left the frequency.

THE WELLESBOURNE AFISO reports that [the DA42] was on a VFR training flight. On leaving the ATZ, the [DA42 pilot] was offered a Basic Service. The [DA42 pilot] later changed frequency to Cranfield. It was quite busy, with a number of light-aircraft departing and joining. They received no reports of an Airprox on the frequency. The weather was good, with a light north westerly wind, good visibility and cloudbase broken at around 3500ft.

Factual Background

The weather at Birmingham Airport was recorded as follows:

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METAR EGBB 301350Z 29007KT 250V320 9999 BKN035 22/13 Q1019
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Analysis and Investigation

Birmingham Airport

RAD1 advised [the RV7 pilot] that they were identified at 1352:37 and asked the [pilot of the] aircraft to confirm what service they required outside controlled airspace. [The pilot] requested a Basic Service at 1352:43 which was acknowledged by RAD1. At 1352:59 RAD1 issued a full clearance to [the RV7 pilot] and advised them that they were cleared to transit Birmingham controlled airspace up the eastern side not above altitude 2000ft VFR. This instruction was read back by [the RV7 pilot] at 1353:06.

At 1353:15 RAD1 moved their radar cursor to highlight [the RV7's] contact return label. At 1353:17, RAD1 highlighted a label for a 7000 squawk aircraft that was tracking south towards [the RV7's] contact. Subsequently, at 1353:22, RAD1 made the following transmission, *"*[RV7 C/S*], keep a good lookout. There is err traffic I think due east of you, half a mile indicating the same level"*. [The RV7 pilot] responded at 1353:29 and stated, *"*[RV7 C/S], *I think we've just passed him".*

[The RV7 pilot] was in receipt of a Basic Service on the Birmingham Radar frequency whilst operating outside controlled airspace underneath the base of Daventry CTA-9. On recognition of a potential confliction between [the RV7] and a 7000 squawk, RAD1 passed Traffic Information and advised [the RV7 pilot] to keep a good lookout; which exceeds the boundaries of the requirements of providing a Basic Service. [The RV7 pilot] reported passing the 7000 squawk aircraft and continued to transit through Birmingham controlled airspace without reporting anything further on the Birmingham Radar frequency.

The UK Airprox Board later advised that the pilot of [the RV7] had reported the incident to them. RAD1 went above the requirements of a Basic Service and advised [the RV7] of the potential confliction once it had been spotted. Minimum horizontal separation between the aircraft was recorded as 0.27NM whilst the minimum vertical separation was recorded as 25ft.

Root cause: RAD1 exceeded requirements and passed Traffic Information to [the RV7 pilot] to raise awareness of a potential conflict despite [the RV7 pilot] being in receipt of a Basic Service and operating outside controlled airspace.

Wellesbourne Mountford Aerodrome

Observations from the review of the information the board and [the AFISO] provided identifies that there has been no involvement of ATS staff in this incident and the first time we became aware of this was when the board contacted us to inform of the incident and asked [the AFISO] to submit an Airprox report.

The Airprox took place approximately 14NM east of Wellesbourne, outside our service depth of coverage (10NM and 3000ft). [The AFISO] confirms they received no report of an Airprox from the

[DA42] pilot or any other aircraft on frequency. Wellsbourne's Aerodrome Flight Information Service does not have any ATS surveillance equipment and, unless a pilot reports an incident to us, or the AFISO observes an incident within the ATZ or immediate vicinity of the aerodrome, we will not be aware of such events.

While a Basic Service was offered, it may have been more appropriate for the [DA42] pilot to have changed frequency to obtain a service from another ATSU, such as Birmingham Radar, Cranfield, or London Information. Ultimately, the pilot remains responsible for any collision avoidance and the separation between their aircraft and another aircraft. It is understood that the [DA42] aircraft was undertaking a VFR flight.

Stakeholders have been reminded through our Airfield Safety and Security Committee of Wellesbourne's coverage limitations. We have also reiterated that while we aim to provide Traffic Information beyond the ATZ and the immediate vicinity of the aerodrome so far as is practical, this is dependent on AFISO workload, with focus being given to traffic within the ATZ, the immediate vicinity of the aerodrome and joining aircraft to ensure Traffic Information is provided to support the integration of aircraft into the circuit.

We will provide general Traffic Information to assist pilots' situational awareness and any applicable updates so far as is practical. Where a pilot report or an AFISO assessment indicates a definite risk of collision, we will issue a warning to pilots, (CAP 797, Chapter 8, paras 8.15-8.20 refer). Pilots have been advised that, when transiting enroute and operating outside our coverage limitations, contacting another ATSU may be more beneficial for obtaining Traffic Information.

Stakeholders have also been reminded to report any Airprox occurring on frequency or within the ATZ/immediate vicinity of the aerodrome promptly so that reports can be submitted within the required timeframes.

CAA ATSI

ATSI has reviewed the reports and has nothing further to add.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were detected and identified using Mode S data. Both aircraft were seen to be on a VFR 7000 conspicuity squawk just over 1min before the Airprox. The RV7 was seen to change squawk to 0402 (Birmingham) at 1352:26.

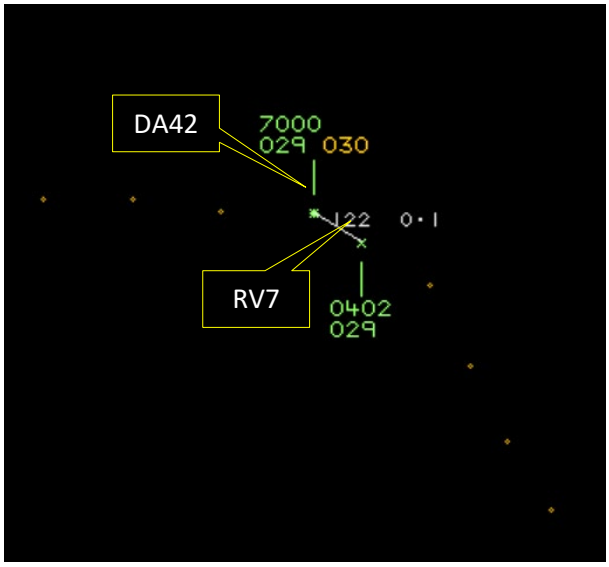

Figure 1 – Time 1353:26 just prior to CPA.

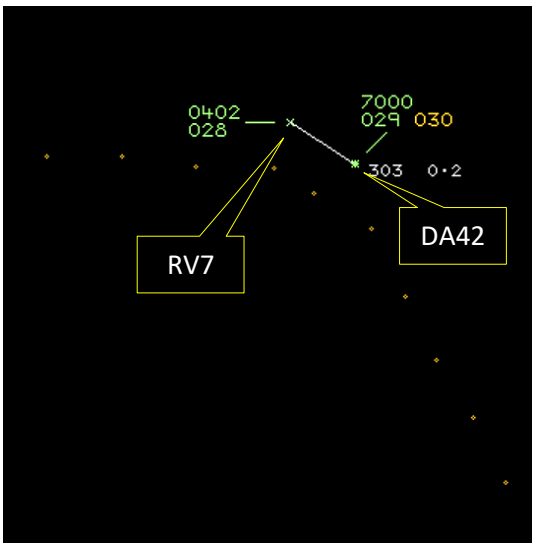

Figure 2 – Time 1353:30 post CPA - aircraft tracks have crossed.

Based on interpolation of the radar tracks, CPA was assessed to have occurred at 1353:27 with 0ft vertical and less than 0.1NM lateral separation.

Further analysis of other aircraft tracking software was undertaken and both aircraft were detected, the RV7 using ADS-B and the DA42 using MLAT sources. Their tracks were seen to cross at 1353:27 and lateral separation appeared to be less than 0.1NM. The RV7 pilot also provided their GPS navigation data which agreed with both the ADS-B and radar tracks.

The RV7 and DA42 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 DA42 pilot was required to give way to the RV7.[2]

Summary

An Airprox was reported when an RV7 and a DA42 flew into proximity 1NM north-northwest of Byfield at 1353Z on Wednesday 30th July 2025. The RV7 pilot was operating under VFR in VMC in receipt of a Basic Service from Birmingham Radar, and the DA42 pilot was operating under VFR in VMC in receipt of a Basic Service from Wellesbourne Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data, reports from the air traffic controller and AFISO involved 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 reviewed the actions of the RV7 pilot and noted that the pilot had contacted Birmingham Radar, provided their details, and requested a Basic Service. After identification, the pilot had received Traffic Information regarding an aircraft to the 'east'. The Board felt it was unfortunate that the pilot had not requested a Traffic Service initially as, although Traffic Information had been correctly provided in this instance, it should not be expected under the usual terms of a Basic Service.[3] The Board further noted that the RV7 pilot had had no prior knowledge of another aircraft in the vicinity before receiving the Traffic Information from Birmingham Radar, as their electronic conspicuity (EC) device had not

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(2) Converging.
[3] CAP774 UK FIS, Basic Service, Traffic Information 2.5 Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO. A pilot who considers that they require a regular flow of specific traffic information shall request a Traffic Service.

displayed or alerted to its presence. Members agreed that the RV7's EC device had been unable to detect the DA42 due to incompatibility (**CF7**), and therefore the pilot had had no situational awareness of the DA42 (**CF6**). Additionally, the Board observed that the RV7 pilot had responded to the Traffic Information by stating they 'believed they had just passed the aircraft', which had been their first sighting of the DA42. Members agreed that this had constituted a late sighting of the DA42 (**CF8**).

The Board then considered the actions of the DA42 pilot, noting that the pilot had been in receipt of a Basic Service from Wellesbourne Information, which was 14NM to the west of them and outside the coverage limits of their Flight Information Service (FIS). The Board expressed disappointment that the experienced flight crew conducting an MEIR renewal had not sought a more appropriate Flight Information Service (FIS) provider, as this may have enabled them to have received a Traffic Service. Members agreed that the DA42 pilot not communicating with an appropriate service provider (**CF5**) had contributed to this Airprox. The Board noted that the DA42 was not equipped with an additional EC device, which may have enhanced the pilot's situational awareness of the RV7's presence. Members reiterated the importance of EC in improving overall traffic awareness and mitigating collision risk and agreed that, without information from an EC device or Traffic Information, the DA42 pilot had had no situational awareness of the presence of the RV7 (**CF6**). Leaving only the See and Avoid barrier as their defence against a mid-air collision, the Board agreed that the DA42 pilot had only sighted the RV7 at a late stage (**CF8**).

Turning their attention to the actions of the Birmingham Radar controller, the Board expressed concern that, having actioned the provision of Traffic Information to the RV7 pilot, it had not provided been sooner. ATC Members discussed the likelihood that earlier Traffic Information could have been issued and considered that the controller had probably adhered to a routine of 'identify, then notify,' which limited the opportunity to deliver timely Traffic Information on the DA42. The Board further noted that the controller, having provided Traffic Information, had been disadvantaged in providing that service in the vicinity of the Airprox because the Short-Term Conflict Alert (STCA) was inhibited below 4000ft in that area. Members agreed that, as a result, STCA had not been available in this situation (**CF4**). The Board felt the lack of STCA detection had led to the controller having not seen the DA42 aircraft tracking towards the RV7 sooner and members agreed that the Birmingham Radar controller had acquired late situational awareness of the DA42's presence (**CF3**) and had therefore detected the DA42 at a late stage (**CF2**). Members further agreed that the late detection of the DA42 had resulted in the late passing of Traffic Information to the RV7 (**CF1**), albeit this had been achieved as soon as the controller had identified the confliction. During their discussions, the Board determined that the controller had done well to pass Traffic Information, albeit late, while it was also noted that (UK) SERA.9005(b)(2) and GM1 (UK) SERA.9005(b)(2) states that the following falls within the scope of a FIS:

> *"Information relating to collision hazards includes only known activities that constitute risks to the aircraft concerned"*

The Board noted that CAP774 clarifies that, in accordance with the above reference:

> *"If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot."*

The Board reviewed the Wellesbourne ATC report and noted that the Wellesbourne AFISO had not been involved in the Airprox. Members expressed their appreciation to the team at Wellesbourne aerodrome for their comprehensive review of the event and for issuing a timely reminder to stakeholders.

In concluding their discussions, the Board noted that communication, alerting devices, and subsequent situational awareness had been key factors in this event. Members agreed that the combination of the Birmingham controller's late situational awareness, compounded by the inhibited STCA, and the absence of situational awareness by either pilot, through R/T or EC detection, had resulted in both the RV7 and DA42 pilots having sighted the other aircraft at a late stage. The Board noted that the DA42 pilot had taken emergency avoiding action and members agreed that safety had not been assured. As such the Board assigned a Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025162			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Human Factors	• ANS Traffic Information Provision	Provision of ANS traffic information	TI not provided, inaccurate, inadequate, or late
2	Human Factors	• Conflict Detection - Detected Late	An event involving the late detection of a conflict between aircraft	
3	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	• Electronic Warning System Operation and Compliance			
4	Technical	• Conflict Alert System Failure	Conflict Alert System did not function as expected	The Conflict Alert system did not function or was not utilised in this situation
	Flight Elements			
	• Tactical Planning and Execution			
5	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			
6	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			
7	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			
8	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
	• Outcome Events			
9	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: B.

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 **partially effective** because the Birmingham Radar controller had detected the conflicting traffic late and had therefore passed late Traffic Information to the RV7 pilot.

Electronic Warning System Operation and Compliance were assessed as **not used** because the Airprox occurred within an inhibited zone where alerts would not be generated.

Flight Elements:

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

Tactical Planning and Execution was assessed as **partially effective** because the DA42 pilot could have contacted a more appropriate FIS provider.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither the RV7 nor the DA42 pilots had situational awareness of the other's aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the electronic conspicuity equipment fitted in the RV7 could not detect the DA42.

See and Avoid were assessed as **partially effective** because both the RV7 and DA42 pilots had not seen the other aircraft until immediately prior to CPA.