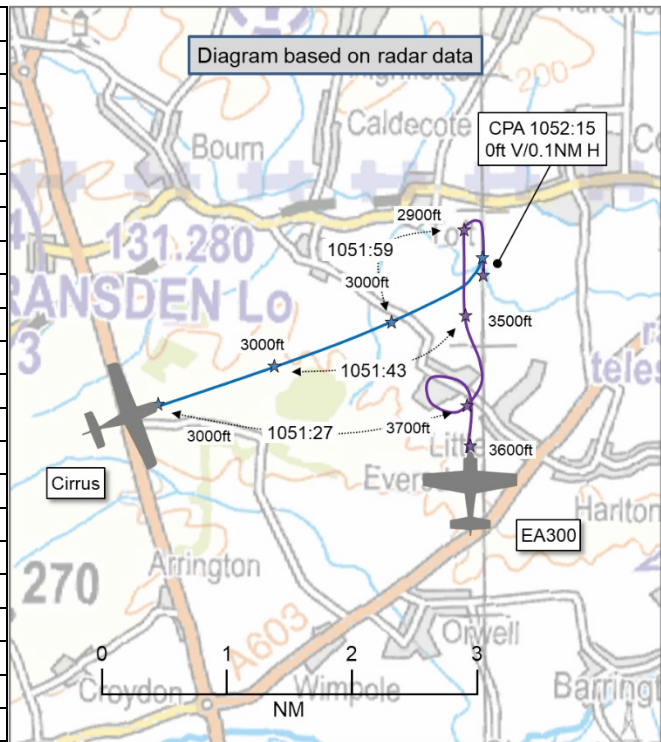


AIRPROX REPORT No 2025244

Date: 02 Dec 2025 Time: 1052Z Position: 5210N 00000W Location: Toft

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Cirrus SR22	Extra EA300
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Traffic (Reduced)	Listening Out
Provider	Cambridge Radar	Fowlmere Traffic
Altitude/FL	3100ft	3100ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Silver	Red, white
Lighting	Strobes, nav	Strobes, nav
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	3000ft	4000ft
Altimeter	QNH (1003hPa)	QNH
Heading	075°	360°
Speed	120kt	160kt
ACAS/TAS	TAS	Not fitted
Alert	None ¹	N/A
	Separation at CPA	
Reported	0ft V/0.5NM H	500ft V/100m H
Recorded	0ft V/0.1NM H	



THE CIRRUS PILOT reports that they had been on an IFR instructional flight being radar-vectorred to GOPOD for RNP to RW23 at [...] under a Traffic Service from Cambridge Radar. Radar heading had been 075°, their altitude had been 3000ft. Traffic with an aerobatic squawk was reported to their 1 o'clock at 3NM. That traffic was observed and reported in sight. The instructor took control, disengaged autopilot and waggled wings to increase visibility. The traffic was observed crossing right-to-left ahead, same altitude. The Cirrus crew maintained heading and altitude as this would have taken them safely behind. At approximately 1NM and to their left [the] aircraft commenced a loop in contravention of the Rules of the Air which state that the aircraft having right of way should maintain altitude and heading² [they believed]. The Cirrus pilot judged that there was a high risk of collision as, if they had maintained course once the aircraft was at the top of the loop and descending, it would have descended directly on top of them. The Cirrus pilot made an avoidance manoeuvre by [performing] a steep turn to the left.

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

THE EA300 PILOT reports that they had a good lookout involving 2 x 90° turns then dived for speed and pulled up into a loop. After going over the top of the loop they saw the Cirrus below, travelling from left-to-right, the Cirrus pilot clearly spotted them [they believed] as they banked hard left increasing the collision risk [they opined]. The EA300 pilot was in the vertical down at this stage, so pushed away to give separation. They had been heading north-northwest on entry to the loop and [the Cirrus] was coming from the west. Despite a good lookout, neither the EA300 pilot nor their very experienced student pilot saw the Cirrus until they were close to beneath them.

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

¹ System fitted is capable of Alerting/Warning of proximate traffic equipped with an operational transponder.

² (UK) SERA.3210 Right of Way (a) The aircraft that has the right of way shall maintain its heading and speed.

THE CAMBRIDGE APPROACH CONTROLLER reports that they had been working in APS when the Cirrus pilot came on frequency and requested a Traffic Service inbound to [...]. The aircraft was identified and given a Traffic Service. Traffic Information was passed on an aircraft squawking aros (7004) and the registration from Mode S was [the EA300 c/s], [...]. The Cirrus pilot reported visual with the EA300. As the aircraft got closer, the Cirrus pilot advised that they may need to divert from their assigned heading, to which [the controller] responded to manoeuvre as required and to advise of the heading if needed. The contact disappeared from radar and the pilot reported taking evasive manoeuvres to avoid the aircraft conducting aerobatics. The Cirrus pilot was asked if they wished to file an Airprox and they said *“there’s not much point in it”*. The aircraft went on to conduct an RNP approach and land safely.

FOWLMERE AIR/GROUND COMMUNICATION SERVICE was not [in operation] at the time of this reported Airprox.

Factual Background

The weather at Cambridge Airfield was recorded as follows:

METAR EGSC 021050Z 22007KT 180V240 CAVOK 10/07 Q1003=

Analysis and Investigation

Cambridge Safety Investigation

1046:27 Cirrus pilot first called on frequency requesting a Traffic Service. There was a short delay in issuing this due to the aircraft not being booked in at [...] and there was approximately a 90sec delay in the service being issued, however this did not appear to be contributory.

CIRRUS-RADAR – *‘Good Morning again, Cambridge Radar, ugh [Cirrus c/s], request Traffic Service’*.

1047:53 [a reduced] Traffic Service was issued by the controller in the correct format, using the phraseology instructed in the MATS Pt2 due to radar performance.

RADAR-CIRRUS – [Cirrus c/s] *identified (#6160)Traffic Service with reduced Traffic Information due to limited surveillance performance’*.

1050:27 Separation at this point fell to within 5NM – As per the CAP774 provision of a Traffic Service:

Traffic is normally considered to be relevant when, in the judgement of the controller, the conflicting aircraft’s observed flight profile indicates that it will pass within 3NM and, where level information is available, 3000ft of the aircraft in receipt of the Traffic Service or its level-band if manoeuvring within a level block. However, controllers may also use their judgment to decide on occasions when such traffic is not relevant, e.g. passing behind or within the parameters but diverging. Controllers shall aim to pass information on relevant traffic before the conflicting aircraft is within 5NM, in order to give the pilot sufficient time to meet their collision avoidance responsibilities and to allow for an update in traffic information *if considered necessary*.

At the same time, the Tower controller called regarding the departure of [...] (Helimed) on a CAT A departure from [...].

1050:37 – RADAR-CIRRUS – [Cirrus c/s], *traffic, right, one o’clock, three miles, crossing right left ahead, squawking aerobatics, indicating two thousand nine hundred feet, I believe it’s an Extra 300.’*

1050:47 – CIRRUS-RADAR – *‘Traffic in sight, [Cirrus c/s]’*.

It should be noted that although the controller was not in contact with the conflicting aircraft pilot, the controller stated that they knew the aircraft type from previous interactions and passed it to the [Cirrus]

pilot to assist in them visually acquiring the traffic as well as alerting them to the possibility of high energy manoeuvres from an aerobatic aircraft.

1050:37 [Cirrus c/s] was observed to the southwest of Cambridge by approximately 10NM, routing inbound at 3A, operating under a Traffic Service. Traffic was observed at the same time operating 7NM southwest of Cambridge at 3.5A, squawking 7004 (aerobatics), later identified as potentially [EA300] via Mode S. Traffic was called by the controller at this point (1050:37) and the Cirrus pilot reported the traffic in sight. The separation at this point was approximately 2.5NM.

The pilot of [Cirrus c/s] advised during the post incident interview that when they had the traffic in sight it appeared to be crossing right-to-left approximately 3NM ahead of them, and they were able to maintain visual contact with the aircraft.

1050:37 – RADAR-CIRRUS – [Cirrus c/s], *traffic, right, one o'clock, three miles, crossing right-left ahead, squawking aerobatics, indicating two thousand nine hundred feet, I believe it's an Extra 300.*

1050:47 – CIRRUS-RADAR – *Traffic in sight, [Cirrus c/s]*.

1051:12 – CIRRUS-RADAR – [Cirrus c/s], *I do have that traffic in sight, I may need to deviate from this heading to avoid*'.

1051:18 – RADAR-CIRRUS – [Cirrus c/s], *not a problem, ugh advise if you need to deviate, and ugh, any heading is acceptable by me*'.

1051:24 – CIRRUS-RADAR – *Wilco*'.

1051:53 This marked the [point of the] last radar sweep before the radar lost the primary and secondary track of the conflicting aircraft. The controller reported that this typically occurs when an aircraft is performing very high energy manoeuvres and the radar is unable to maintain the contact. The pilot of [Cirrus c/s] reported that around the same time they observed the conflicting aircraft enter into a high energy loop manoeuvre.

1052:14 The pilot of [Cirrus c/s] advised the radar controller they were taking avoiding action:
CIRRUS-RADAR – [Cirrus c/s], *avoidance manoeuvre heading north*'.

[CPA at 1052:15]

1052:16 – RADAR-CIRRUS – *Roger*'.

1052:44 – CIRRUS-RADAR – *Ugh, [Cirrus c/s], I really am quite shocked by that ugh, aircraft doing aerobatics so close to Cambridge, obviously not looking out*'.

1052:57 – RADAR-CIRRUS – [Cirrus c/s], *roger, and ugh, do you wish to file anything?*

1053:03 – CIRRUS-RADAR – *Negative, there's no point*'.

1053:07 – RADAR-CIRRUS – [Cirrus c/s], *roger, advise when you're able to accept any further headings, and ugh, do you wish to route via TIPGO now or ugh, vectors for GOPOD again?*'

1052:34 The Mode C output of the conflicting aircraft was not displayed for approximately 20sec after the incident – the controller reported that this is a known issue when aircraft are performing high energy manoeuvres.

At 1052:54 the Mode C readout became active again, indicating the aircraft at 3100ft. The [Cirrus] pilot during their interview reported they were unable to tell what the separation was as they took their avoiding action once the aircraft had begun their loop manoeuvre, concerned that they were going to *'come back around on top of us*'.

Conclusion

Cambridge is a known provider of Procedural Service, although on this occasion the Radar was being used to provide a service to [Cirrus c/s] and was utilised to provide information on [EA300 c/s] and their relative position.

The event was initiated by the actions of the pilot of [EA300 c/s], who was operating whilst displaying the squawk 7004 (aeros) to signify aerobatics. This aircraft was carrying out high energy manoeuvres in the vicinity of Cambridge airport. The pilot was not receiving a service from Cambridge or believed to be monitoring the ATC frequency (120.965MHz).

The pilot of [EA300 c/s] failed to maintain a good lookout for other airspace users [they opined] and the aircraft commenced aerobatic manoeuvres on the nose of an aircraft in contact with Cambridge Radar (Cirrus c/s) whilst it was making an approach to [...] at a similar altitude.

CAA ATSI

ATSI has nothing to add to the Cambridge report.

UKAB Secretariat

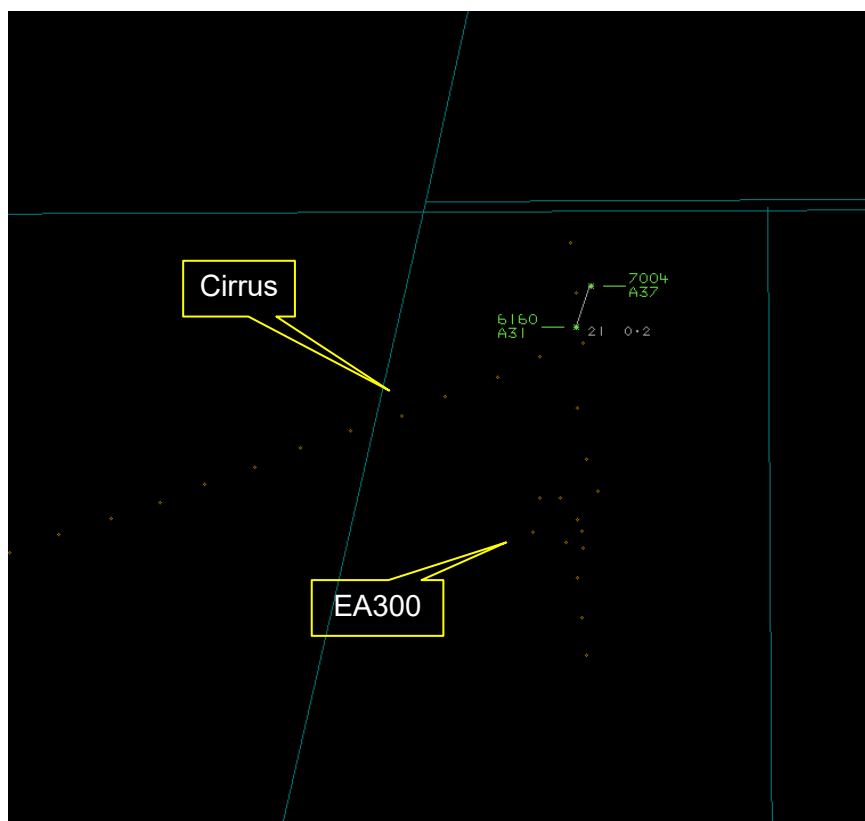


Figure 1: CPA minus 4 sec (1052:11).

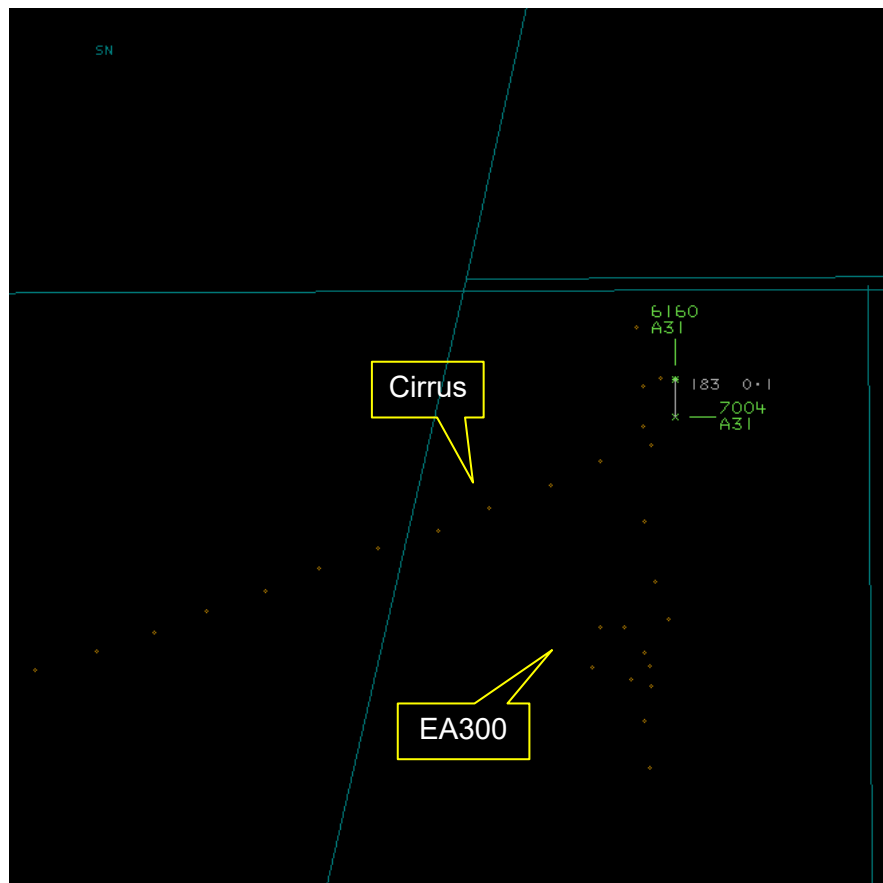


Figure 2: At CPA – 1052:15.

Both aircraft were tracked by radar and identified via Mode S data.

The Cirrus and EA300 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

Summary

An Airprox was reported when a Cirrus and an EA300 flew into proximity at Toft at 1052Z on Tuesday 2nd December 2025. The Cirrus pilot was operating under IFR in VMC in receipt of a reduced Traffic Service from Cambridge Radar, and the EA300 pilot was operating under VFR in VMC and had been Listening Out on the Fowlmere Traffic frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS data, a report from the air traffic controller 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 firstly considered the actions of the Cirrus pilot, noting that had been engaged in an IFR instructional sortie and had been in receipt of a Traffic Service from Cambridge Radar. They had received Traffic Information and had, as a result, visually acquired the aerobatics aircraft (the EA300) and had determined that their current flight path would have kept them clear of it. Board members felt that, in such cases, approaching aircraft pilots should consider offering as wide a berth as possible to the manoeuvring aircraft to further reduce the risk of an Airprox event (**CF2**, **CF3**). In this case, as the EA300 pilot had continued their exercise, the aircraft had descended toward the Cirrus and its proximity had led the Cirrus pilot to become concerned (**CF7**). The Board noted that the Cirrus had been equipped

³ (UK) SERA.3205 Proximity.

with a Traffic Alerting System (TAS) which had been capable of receiving electronic emissions from the EA300 but had unfortunately appeared not to have done so in this case (CF5). Members noted that the chosen operating area for the EA300 is recognised as being congested and opined that, where possible, pilots could consider either operating further afield or make use of all available equipment and services to develop and maintain situational awareness.

Moving to the actions of the EA300 pilot, members noted that the pilot had been engaged in an aerobatics exercise and had displayed the appropriate transponder code to alert adjacent air traffic control units of their presence. Members noted that the pilot had maintained a listening watch on the Fowlmere Air/Ground Communications frequency rather than utilise one of the available surveillance-based services in this area, and wished to remind all pilots of the advice that is printed on the CAA VFR aeronautical charts, namely '*Pilots are strongly recommended to contact aerodrome ATSU before flying within 10nm of any aerodrome marked with instrument approach feathers....*'. The Board wished to stress that this is a known busy operating area and there are a number of service providers who are able and willing to provide active monitoring of a flight to improve situational awareness (CF1). The Board agreed that, as the EA300 pilot had carried no electronic conspicuity equipment, and had not been in receipt of an air traffic service, they had gained no situational awareness of the presence of the Cirrus (CF4) and had achieved only a late-sighting of the Cirrus as they had been descending through the vertical towards it (CF6).

In reviewing the role of the Cambridge controller, Board members felt that although they had alerted the Cirrus pilot to the presence of the EA300 at a range of 3NM, they had done so having declared that they had been operating with a limited surveillance performance and this had perhaps been as much as could be expected in this case. Members felt that, where possible, Traffic Information when available should be passed as early and comprehensively as possible.

Concluding their discussion, members turned their attention to the determination of the risk of collision. They noted that the Cirrus pilot had been given situational awareness of the presence of the EA300 by Cambridge, had acquired it visually and had initiated avoiding action. Although members felt that a greater margin might have been considered for an aircraft on an aerobatics exercise, they had reduced the risk of collision. Members consequently agreed that safety margins had been reduced much below the norm and were in agreement that there had been a risk of collision (CF8), assigning a Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2025244				
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
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
• Situational Awareness of the Conflicting Aircraft and Action				
3	Human Factors	• Lack of Action	Events involving flight crew not taking any action at all when they should have done so	Pilot flew close enough to cause concern despite Situational Awareness
4	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				
5	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
• See and Avoid				

6	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
7	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
• Outcome Events				
8	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 Assessment⁴

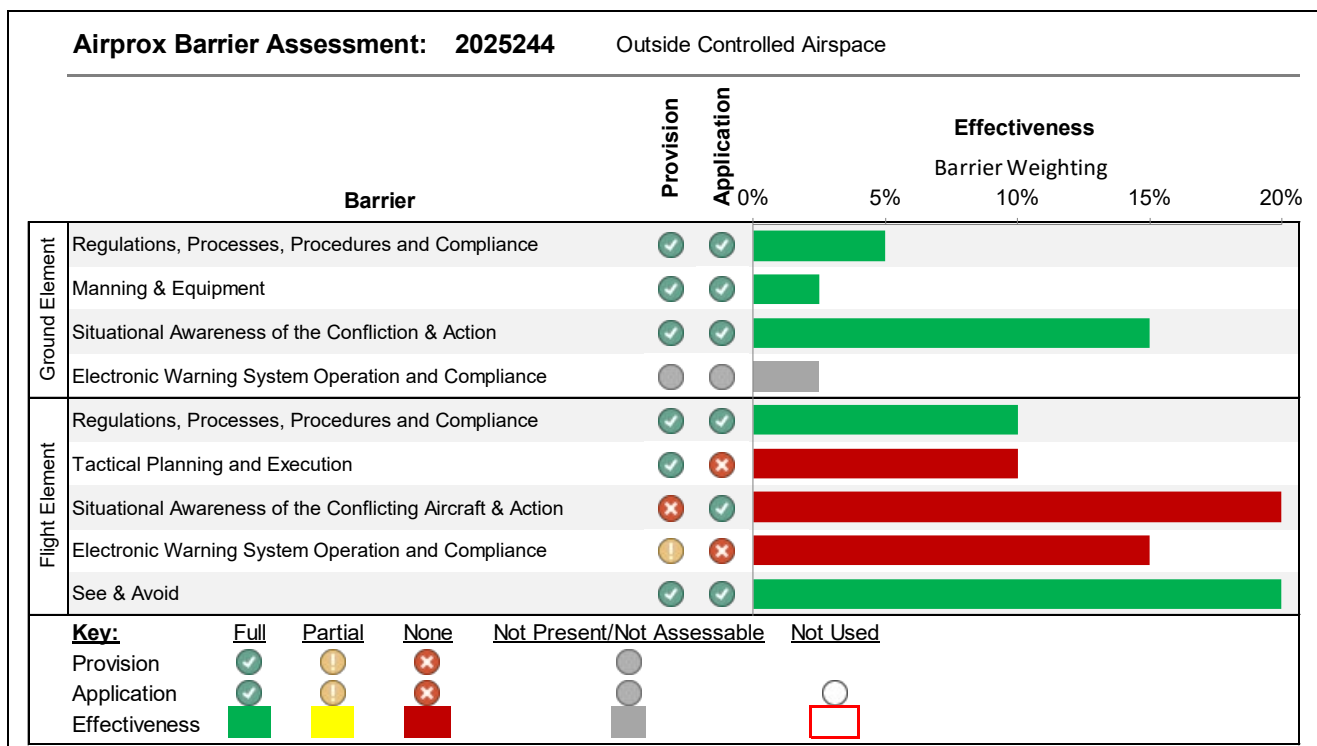
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Tactical Planning and Execution was assessed as **ineffective** because, having become aware of the presence of the EA300, the Cirrus pilot had not taken sufficient avoiding action to remove any risk of collision, and the EA300 pilot could have chosen to take a Flight Information Service whilst performing their aerobatics exercise.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the EA300 pilot had no situational awareness of the presence of the Cirrus.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the Cirrus had not registered any electronic emissions from the EA300.



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