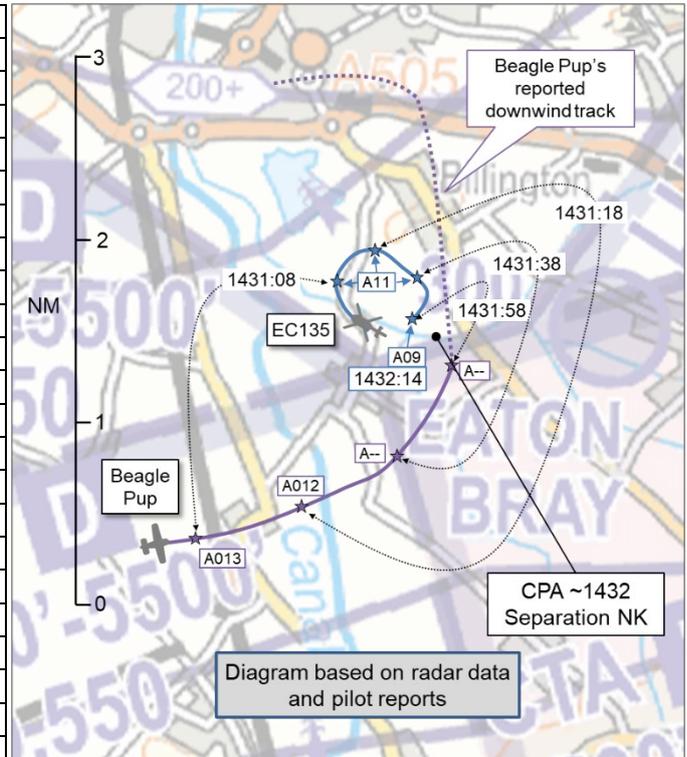


AIRPROX REPORT No 2025218

Date: 07 Oct 2025 Time: ~1432Z Position: 5153N 00038W Location: South of Leighton Buzzard

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	Beagle Pup
Operator	NPAS	Civ FW
Airspace	London FIR	Luton CTR
Class	G	D
Rules	VFR	VFR
Service	Basic	None
Provider	Luton Radar	N/A
Altitude	900ft	NK
Transponder	A, C, S	A, C, S ¹
Reported		
Colours	Blue, yellow	White
Lighting	HISL, strbs, ldg.	Bcns top/btm, nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude	1200ft	1000ft (700ft AGL)
Altimeter	QNH (1024hPa)	QNH (1024hPa)
Heading	Orbiting	360°
Speed	60kt	70Kt
ACAS/TAS	TCAS I	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	0ft V/NR H	300ft V/300m H
Recorded	Not Known	



THE EC135 PILOT reports that they were dispatched to a task at a site approximately 8.5NM west-northwest of Luton Airport. They were operating under a Basic Service outside controlled airspace with clearance to enter and re-enter controlled airspace as required, under Radar Control, due to operating on the edge of Luton's Class D airspace. They had established an orbit at approximately 1300ft-1200ft on Luton QNH 1024hPa. Luton Radar had identified the traffic and [the EC135 pilot] had visual 3NM out as [the other aircraft] transited south of their position just north of the Luton Class D airspace [they assessed]. They tracked the aircraft as it started to turn towards them in a left turn (now northerly heading) and descend through their level. The aircraft continued to appear to be turning directly towards their position. Luton Radar alerted them to the converging traffic and they acknowledged that they had visual. They continued their orbit, turning away from the aircraft now on a northerly track, but the aircraft continued its left-hand turn towards their position onto a westerly heading. Luton Radar again alerted them to the converging traffic and [the EC135 pilot] informed them they were avoiding and descending. They turned sharply right and descended to avoid. The [pilot of the] aircraft continued their left turn and descent to land at [presumed destination], presumably oblivious to the incident. No TCAS indications were seen.

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

THE BEAGLE PUP PILOT reports that they were approaching to land at a private strip. They had entered the downwind leg and started their pre-landing checks, lowered landing flap and noticed a helicopter in their 12 o'clock at a range of approximately 0.5NM, hovering, and slightly below them. The helicopter was pointing towards their left so they decided to turn right to pass behind it but, as they made that decision, the helicopter quickly moved forward to their left and simultaneously descended by 300ft. They decided not to change their course, as the helicopter was no longer in their path and was moving further away from their path. The helicopter then turned left and adopted a reciprocal course to

¹ The transponder was switched off at low level for the circuit and landing phase (see pilot's narrative for detail).

their own and, as the Beagle Pup pilot passed abeam at 300m-400m with the helicopter 300ft below, they rocked their wings to signify that they had seen it and kept an eye on the helicopter as long as they were able. They then turned on to base-leg and were able to see that the helicopter was nowhere near their destination, so they carried on and landed.

The pilot further noted that they had been concentrating on their downwind (pre-landing) checks and, on seeing the helicopter, had monitored it. They also advised that the transponder was deactivated during the approach to the landing strip in order to prevent a recurrence of previously initiated search operations.

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

THE LUTON APPROACH CONTROLLER reports that they had taken over control of INT/FIN in a band-boxed configuration. On frequency was [EC135 C/S], just outside controlled airspace under an agreement of a Basic Service when outside and Radar Control when inside.

They observed a primary contact in close proximity of approximately 0.5NM and passed Traffic Information. [The pilot of the EC135] responded that the [pilot of the] other aircraft had not appeared to have seen them and they had taken avoiding action. [The EC135 pilot] later reported that the aircraft looked to be descending into [a private strip].

Factual Background

The weather at Luton Airport was recorded as follows:

METAR EGGW 071420Z AUTO 25009KT 9999 0VC024 14/10 Q1023

Analysis and Investigation

NATS Safety Investigations

Whilst operating under a Basic Service in Class G airspace to the north of the Luton CTR, the pilot of [EC135 C/S] reported having taken avoiding action against an aircraft, later identified as [the Beagle Pup], which had crossed a portion of the CTR without clearance from the Luton Approach controller before appearing to land at [a private strip]. The pilot of [the EC135] advised that they would potentially file an Airprox report.

Description and Investigation.

Information available to the investigation included:

- CA4114 form (NATS)

[EC135 C/S], an EC135 helicopter operating under VFR, had initially contacted the Luton Approach controller at 1336:47 (all times UTC), requesting a "*Basic Service and zone crossing*" prior to operating in Class G airspace to the west of Luton, just north of the Luton CTR (Class D) boundary. The Luton Approach controller identified the aircraft on radar and issued a Basic Service and crossing clearance of Luton controlled airspace in accordance with the pilot's request. In subsequent discussion, the pilot of [the EC135] advised the grid reference number in which they would be operating, and clearance direct to this area was issued by the controller. Information pertaining to the active Dunstable Downs gliding area was also provided to the pilot of [the EC135].

As [the EC135] approached their area of operation at 1351:21, the pilot stated that they were "*...just coming on the scene, hoping to enter and re-enter not above 2000ft, I'll just be on the edge of the zone here*". The Luton Approach controller responded, "*...that is approved, not above altitude two thousand feet VFR, it'll be a Basic outside, Radar Control inside*" and the pilot read back "*...cleared to enter not above 2000ft, VFR, Basic outside, Control inside*". Whilst the area of operation was

predominantly within Class G airspace, this was a normal agreement to permit the operational task to be conducted in proximity to the boundary of the CTR (SFC-3500ft) without increasing RT loading.

Whilst the task of [the EC135] was underway, an aircraft squawking Mode A code 7000 and identified by Mode S, was observed on the Safety Investigations post-event Radar Replay tracking eastbound towards the Luton CTR. [The pilot of] this aircraft was not in communication with the Luton Approach controller or known to them in any way. Unverified Mode C information indicated [the Beagle Pup] to be descending, passing 1200ft at 1431:32 prior to Mode C ceasing on the subsequent radar update. At 1431:40 secondary data for the aircraft ceased to be displayed, although the primary track continued, turning in a northeasterly direction within the Dunstable Downs gliding area and towards the position of [the EC135]. The relative positions of the aircraft immediately prior to secondary information ceasing are shown in Figure 1.

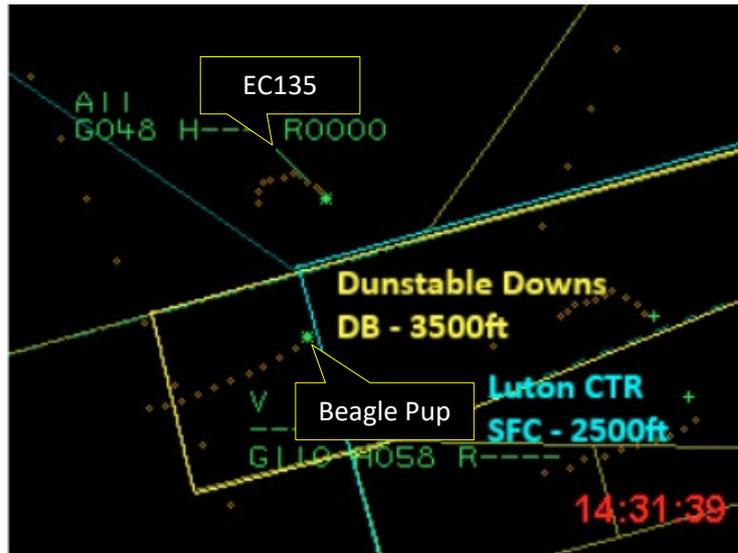


Figure 1

Since commencing their task, there had been no further transmissions between the pilot of [the EC135] and the Luton Approach controller until 1431:45 when the Luton Approach controller advised the pilot of [the EC135] "...traffic to the south of you by less than a mile, no height information, may be a glider tracking northeast bound". Note that it was normal for gliders operating within the Dunstable Downs area to be presented as primary only returns, with no clearance or communication with Luton Approach required.

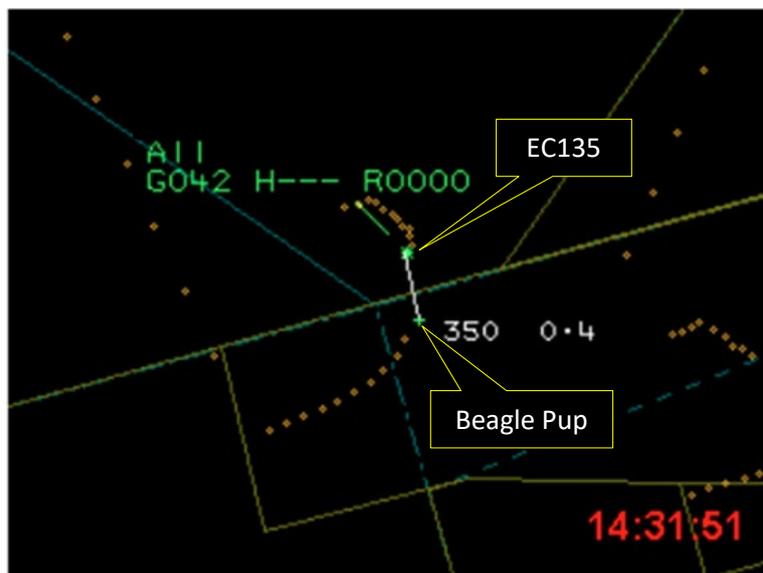


Figure 2

At 1431:51 the pilot of [the EC135] responded "...visual with that, they didn't see me at all, just came straight towards me, I have taken avoiding action". During this transmission, the radar return associated with [the Beagle Pup] ceased to be displayed, likely due to having descended below the base of radar cover (note that the designated base of cover in this area was 1000ft) (Figure 2 above).

[The EC135] was observed to make a sharp right turn, then also ceased to be displayed due to descent below radar coverage, with ADS-B data recording that the aircraft descended to 500ft. As [the Beagle Pup] was not displayed on radar at the time, the closest point of approach could not be determined in the vertical plane. Correlating the position at which the track of [the EC135] commenced its turn with the assessed location of [the Beagle Pup], it is probable that the aircraft passed approximately 0.3NM laterally, although this is based upon estimated positions.

The Luton Approach controller enquired as to whether the pilot of [the EC135] would be reporting the event as an Airprox, and the pilot responded "*potentially*" and subsequently informed the controller that the conflicting traffic appeared to be landing. The controller advised that they were unable to see the aircraft on radar. At the time of writing, Safety Investigations had not received a report from either pilot.

Conclusion

The event occurred when the pilot of [the Beagle Pup], turned and descended into potential conflict with [EC135 C/S], a helicopter operating VFR outside controlled airspace in proximity to the CTR boundary. The pilot of [the EC135] was in receipt of a Basic Service from the Luton Approach controller, whilst the pilot of [the Beagle Pup] was not in contact with the Luton Approach controller at any point, and secondary data ceased to be displayed as the aircraft [approached] the CTR.

The Closest Point of Approach is estimated to have occurred at 1431:55 and was appraised from Multi-Track Radar as approximately 0.3NM. It was not possible to assess vertical distance between the aircraft.

The incident was resolved after the Luton Approach controller recognised the potential conflict and provided Traffic Information to the pilot of [EC135] who, although operating in Class G [airspace] under a Basic Service at the time, was in receipt of VFR clearance to enter the CTR (Class D) in accordance with their task. The pilot of [the EC135] had already sighted the traffic and reported having taken avoiding action, subsequently stating that they would potentially file the event as an Airprox.

CAA ATSI

ATSI has reviewed all the reports. [The EC135] pilot had already reported receiving Traffic Information from Luton ATC twice. ATSI has nothing to add to the NATS investigation.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft were identified using Mode S data. At 1431:34 the Beagle Pup's Mode C altitude readout was no longer detected and its primary track was seen for the next 24sec through to 1431:58 (Figure 3).

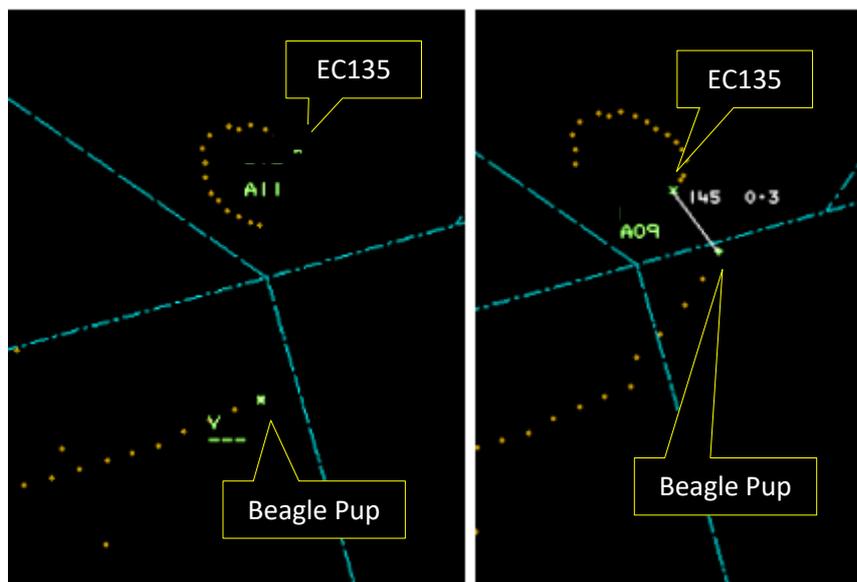


Figure 3 – Time 1431:34 lost Mode C. Time 1431:58 last primary return.

Further analysis of third-party tracking software was undertaken; the EC135 was identified using MLAT sources and the Beagle Pup was identified using ADS-B data sources. The ADS-B data for the Beagle Pup was detected up to 1431:50 (Figure 4).

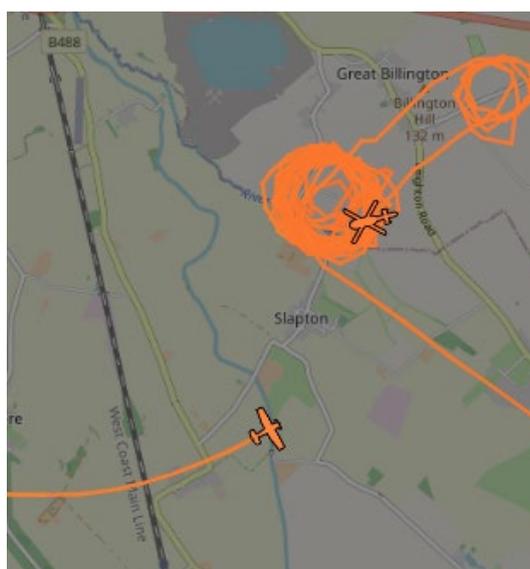


Figure 4. Time 1431:50

The closest point of approach observed on radar was at 1431:58 with 0.3NM lateral separation. CPA was assessed to have occurred at approximately 1432. Separation was not assessable.

The EC135 and Beagle Pup 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 An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation.⁴ When an aircraft carries a serviceable SSR transponder, the pilot shall operate the transponder at all times during flight, regardless of whether the aircraft is within or outside airspace where SSR is used for ATS purposes.⁵

² (UK) SERA.3205 Proximity.

³ (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

⁴ (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

⁵ (UK) SERA.13001(a) Operation of an SSR transponder.

Summary

An Airprox was reported when an EC135 and a Beagle Pup flew into proximity south of Leighton Buzzard at approximately 1432Z on Tuesday 7th October 2025. The EC135 pilot was operating under VFR in VMC in receipt of a Basic Service from Luton Radar, and the Beagle Pup pilot was operating under VFR in VMC not in receipt of a FIS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the air traffic controller involved and a report from the appropriate operating authority. 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 EC135 pilot, and noted that they had received Traffic Information on the Beagle Pup and had subsequently seen, monitored and eventually avoided it. Members agreed, therefore, that the EC135 pilot had been concerned by the proximity of the Beagle Pup (**CF8**). The Board noted, however, that during this time the EC135 pilot had been operating within the circuit area of a private strip for which the Beagle Pup pilot had been executing an approach, and members agreed that the pilot of the EC135 had not avoided the pattern of traffic for the Beagle Pup's destination (**CF5**). The Board acknowledged that the EC135 pilot had needed to be operating in that area and discussed the pilot's operational requirements to maintain a height that would typically be used by circuit traffic at most airfields. Helicopter and surveillance-experienced members cited examples of why higher or lower altitudes may have been considered, dependant on the operational need at the time, and the Board agreed that the pilot's primary concern would have been to maintain a vigilant scan after having considered the potential to have encountered other low-level traffic. When considering the EC135 pilot's awareness of their surroundings, the Board noted that the airfield in use by the Beagle Pup pilot had not been displayed on aeronautical charts, and members agreed that it had been unfortunate that the flight planning resources available to the EC135 pilot had not contained any information regarding the airfield in the vicinity of the EC135 pilot's area of operation (**CF4**).

Moving their attention to the actions of the Beagle Pup pilot, the Board first noted that they had not been in receipt of a Flight Information Service (FIS). The Board discussed a number of options available to the pilot in the area, including Farnborough LARS and Luton Approach, and members agreed that the Beagle Pup pilot may have been better served by having sought a surveillance-based ATS in this instance (**CF3**). The Board considered that, on this occasion in particular, the Beagle Pup pilot would likely have been passed Traffic Information on the EC135 and, as a consequence, would have had advanced situational awareness on the helicopter's presence. As it was, members agreed that the Beagle Pup pilot had had no situational awareness of the presence of the EC135 (**CF6**) and that, subsequently, the Beagle Pup pilot had sighted the EC135 late (**CF7**). The Board registered their disappointment that the Beagle Pup pilot had neither spoken with Luton Approach nor kept their transponder on, noting the latter is a requirement under (UK)SERA.13001(a). Noting the pilot's previous concerns regarding search operations being conducted when their transponder signals had ceased, members agreed that appropriate communication with a surveillance-based service provider should negate such issues.

The Board then considered the actions of the Luton Approach controller, noting that the controller had monitored the Beagle Pup's radar track and had also provided Traffic Information to the pilot of the EC135 pilot. The Board noted that, had the Beagle Pup pilot been in communication with the Luton Approach controller, then the controller would not have assumed that the radar track had been that of a glider, of which many frequented the area. Members agreed, therefore, that the Luton Approach controller had only had generic situational awareness of the presence of an aircraft in the vicinity of the EC135 pilot's area of operation (**CF1**). The Board further noted that the controller's STCA had not alerted them to the potential conflict between the EC135 and the Beagle Pup, and members agreed that the STCA had not been used on this occasion as the Beagle Pup's initial VFR squawk had been outside the select frame (**CF2**).

In finalising their discussions the Board noted that the Beagle Pup pilot had had no situational awareness of the EC135's presence and neither the EC135 pilot nor the Luton Approach controller had known the intentions of the Beagle Pup pilot, which had hindered the predictability of the Beagle Pup's positioning. Members agreed, therefore, that safety had been degraded, but that the EC135 pilot's early sighting of the Beagle Pup had allowed them to have effectively avoided it, and that there had been no risk of collision. As such, the Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025218			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Situational Awareness and Action				
1	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				
2	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				
3	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
4	Organisational	• Flight Planning Information Sources	An event involving incorrect flight planning sources during the preparation for a flight.	
5	Human Factors	• Monitoring of Environment	Events involving flight crew not to appropriately monitoring the environment	Did not avoid/conform with the pattern of traffic already formed
• 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
• See and Avoid				
7	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
8	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 Assessment⁶

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

Ground Elements:

Electronic Warning System Operation and Compliance were assessed as **not used** because the VFR conspicuity squawk used by the Beagle Pup pilot was outside the select frame of the STCA in use by the Luton controller.

⁶ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

Flight Elements:

Tactical Planning and Execution was assessed as **ineffective** because no information was available to the EC135 pilot regarding the existence of the private strip, and they had inadvertently operated within the pattern of traffic formed by the Beagle Pup.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because pilot of the Beagle Pup had no situational awareness of the presence of the EC135.

Airprox Barrier Assessment: 2025218		Outside Controlled Airspace		Effectiveness				
Barrier		Provision	Application	Barrier Weighting				
				0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	✓	✓	<div style="width: 50%; background-color: green;"></div>				
	Manning & Equipment	✓	✓	<div style="width: 25%; background-color: green;"></div>				
	Situational Awareness of the Confliction & Action	⚠	✓	<div style="width: 15%; background-color: green;"></div>				
	Electronic Warning System Operation and Compliance	✓	○	<div style="width: 0%; background-color: green;"></div>				
Flight Element	Regulations, Processes, Procedures and Compliance	✓	✓	<div style="width: 10%; background-color: green;"></div>				
	Tactical Planning and Execution	✗	✗	<div style="width: 10%; background-color: red;"></div>				
	Situational Awareness of the Conflicting Aircraft & Action	✗	✓	<div style="width: 20%; background-color: red;"></div>				
	Electronic Warning System Operation and Compliance	⚠	✓	<div style="width: 15%; background-color: green;"></div>				
	See & Avoid	✓	✓	<div style="width: 20%; background-color: green;"></div>				
Key:		Full	Partial	None	Not Present/Not Assessable	Not Used		
Provision	✓	⚠	✗	●	○			
Application	✓	⚠	✗	●	○			
Effectiveness	■	■	■	■	■			