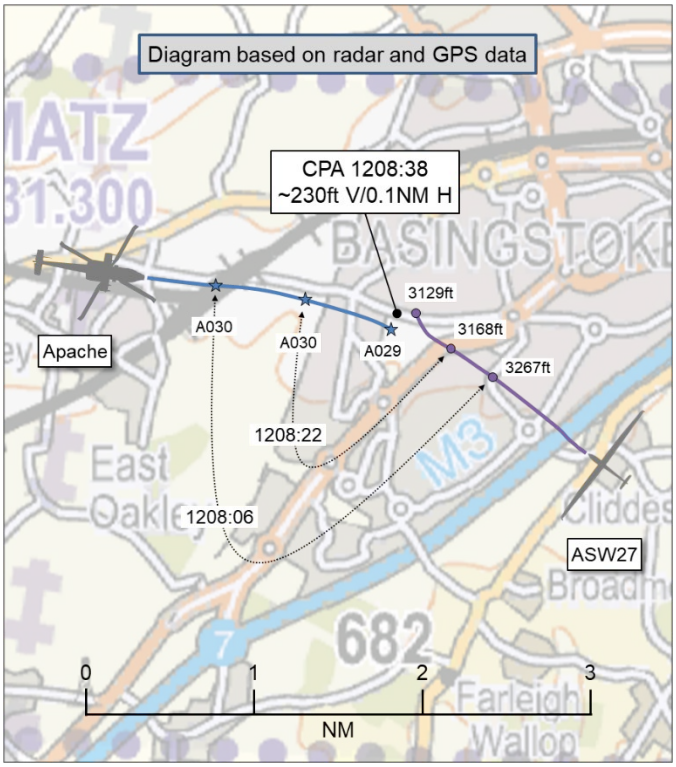
# AIRPROX REPORT No 2024235

Date: 13 Sep 2024 Time: 1209Z Position: 5115N 00108W Location: Basingstoke

## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|---|---|---|
| Aircraft | Apache | ASW27 |
| Operator | HQ JAC | Civ Gld |
| Airspace | Odiham MATZ | Odiham MATZ |
| Class | G | G |
| Rules | IFR | VFR |
| Service | Traffic | Listening Out |
| Provider | Odiham Approach | Gliding channel |
| Altitude/FL | 2900ft | 3129ft |
| Transponder | A, C, S | Not fitted |
| **Reported** | | |
| Colours | Black | White |
| Lighting | Strobes, nav, landing | None |
| Conditions | VMC | VMC |
| Visibility | >10km | >10km |
| Altitude/FL | 3000ft | 3195ft |
| Altimeter | QNH | QNH |
| Heading | 097° | 315° |
| Speed | 120kt | 68kt |
| ACAS/TAS | Not fitted | FLARM |
| Alert | N/A | None |
| **Separation at CPA** | | |
| Reported | 0ft V/500m H | 200ft V/500m H |
| Recorded | ~230ft V/0.1NM H | |




**THE APACHE PILOT** reports that they were conducting a pre-IR test sortie as part of a conversion to the Apache. Instrument-flight general handling had been conducted north of Andover and they were tracking the ODH TACAN on the 097° QDM for the IAF as part of the [RW27 joining procedure]. The HP was the trainee (seated at the co-pilot gunner station) and the QHI was NHP (seated at the pilot station). The airspace was already busy with multiple primary contacts being called by Odiham Approach. The Fire Control Radar was on and operating in [a mode that] was proving successful in aiding the crew to visually identify the traffic being called. Due to the volume of traffic calls and the difficulty of visually identifying gliders orbiting in thermals close to cloud, it wasn't always possible to become 'Traffic in sight' for all calls. The glider in question was called by ATC as a primary contact only and a 'Traffic not sighted' call was made by the NHP. After a period of time, the NHP temporarily went 'heads-in' and, upon looking back out into the area of the traffic call, a glider was identified in the 1 o'clock position to the aircraft, at the same level and converging inside <500m. Due to the vector and the rate of convergence, the NHP took control to achieve avoiding action and an Airprox call was made. At the time of the incident, the Apache was tracking 097° at 120kt and at altitude 3000ft. The glider was estimated to have been heading 330°, at the same altitude and not in an orbit. As they were IFR but in VMC, a request was made to ATC to conduct the procedure at 2000ft, rather than the published 3000ft due to the volume of traffic at that altitude. This was granted by ATC and the sortie was continued without further incident.

[The pilot of the Apache commented that] the issues of operating at Odiham IFR with gliding traffic from Lasham are well known. The key aspect that surprised the crew was the level of traffic. Especially as that amount of gliding activity is normally associated with a competition, which would normally have been communicated to Middle Wallop and published in the Daily Information Sheets. This would also trigger crews to avoid operating at Odiham during that time. No such information was sent to Middle Wallop to be published that day. The Middle Wallop supervisory chain is in communication with Odiham

to understand what procedures are in place with Lasham and how that information is passed on, or if Lasham is aware that they can communicate direct with Middle Wallop Station Ops should Odiham be closed. Whilst the glider in question was not equipped with ADS-B out, the ability for crews to have [compatible EC] would significantly increase situational awareness and reduce the mid-air-collision risk.

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

**THE ASW27 PILOT** reports that they were flying the first leg of a cross-country task from Lasham to Birdlip. Shortly after 1200, when passing over the southern tip of the town of Basingstoke, they became aware of a military helicopter heading towards them from their 10 o'clock position. They perceived the other aircraft to be about 200ft below and some 500m away. They made a definitive turn to starboard with the intention of showing the other pilot their wings (as gliders can sometimes be difficult to see). The other pilot responded immediately by making a similar turn to the right. With the conflict avoided, they turned back on-track towards Birdlip.

[The pilot of the ASW27 opined that] they were well aware of the other aircraft and did not consider it to have been a threat and did not consider reporting an Airprox.

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

**THE ODIHAM APPROACH CONTROLLER** reports that the weather surrounding Odiham was fair, hence a large volume of gliders were operating out of Lasham. [The pilot of the Apache] was in the hold at 3000ft for [an approach to] RW27. With the aircraft at 10NM to the west of Odiham, one non-squawking contact was called to the pilot east of the aircraft by 4 miles. Another non-squawking, slow-moving track was observed to the east of [the Apache] and was called to the pilot. A third contact popped-up and was called as well when the pilot was two miles away from the three contacts. As the Apache got closer to the three observed contacts, the Airprox was called-in. The pilot reported a glider, similar level, down the right-hand side of the aircraft within 500m [they recall]. The pilot took an avoiding turn to remain clear of the glider and then continued with their planned approaches after avoiding a further glider 4NM to the west of Odiham.

[The Odiham Approach controller, also acting as ATCO I/C, opined that] this was close to a mid-air collision with a glider. A high volume of gliders operate in the western MATZ stub of Odiham due to the vicinity of Lasham.

The controller perceived the severity of the incident as 'High'.

## Factual Background

The weather at Odiham was recorded as follows:

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METAR EGVO 131150Z 33004KT 9999 FEW040 14/04 Q1029 NOSIG RMK BLU BLU
METAR EGVO 131220Z 36005KT 9999 FEW039 14/05 Q1029 NOSIG RMK BLU BLU
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## Analysis and Investigation

### Military ATM

Utilising occurrence reports and information from the local investigations, outlined below are the key events that preceded the Airprox. Where available, they are supported by screenshots to indicate the positions of the relevant aircraft at each stage. The screenshots are taken from Unit radar recordings and present the radar presentation of the Apache and ASW27 available to the Odiham Approach controller.

Sequence of Events: At 1204:10, the Apache pilot contacted the Odiham Approach controller and requested a Traffic Service, following a radar handover from Middle Wallop. The Odiham Approach controller issued the Traffic Service at altitude 3000ft Odiham QNH, 1029hPa.


Figure 1 (1204:42). Apache pilot was approved for the procedure

At 1204:42, the Odiham Approach controller cleared the Apache pilot for own navigation to the COPTER TAC Initial Approach Fix. The Odiham Approach controller provided multiple Traffic Information calls with the Apache pilot initially reporting 'traffic not sighted' for all.

At 1207:27, the Odiham Approach controller provided Traffic Information to the Apache pilot relating to an ASW27: "*traffic, east, 3 miles, tracking northwest, no height information, possible glider*". The Apache pilot reported "*traffic not sighted*" (Figure 2).


Figure 2 (1207:27)

At 1207:48, updated Traffic Information was provided: "*previously called traffic, east, 2 miles tracking northwest, no height information, 3 tracks, possible gliders*". Again, the Apache pilot reported "*still not sighted*" (Figure 3).

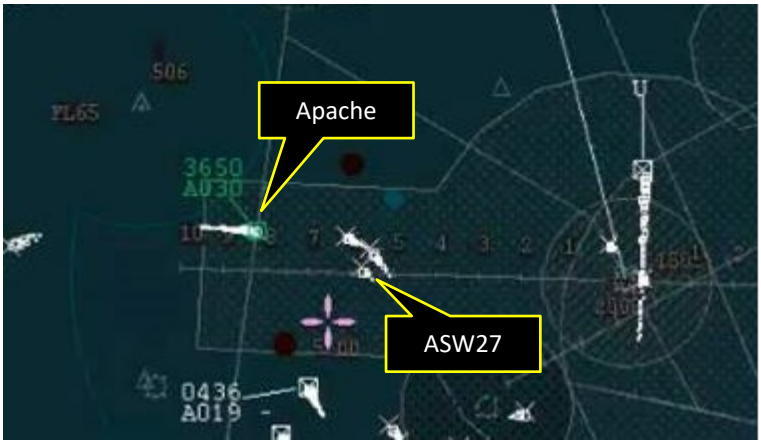



Figure 3 – 1207:49 (The ASW27 appeared as a primary-only contact).

At 1208:05, the Odiham Approach controller opened the landline to liaise with Odiham Tower regarding the Apache's approach. CPA occurred at 1208:39 and recorded as 0.1NM and 0ft separation.

Local BM Investigation: RAF Brize Norton,[1] in conjunction with 7 Army Air Corps, conducted a local investigation following the event to identify the ATS-related causal/aggravating factors. The investigation found that the Odiham Approach controller had provided standard Traffic Information throughout with an initial call at a suitable point which was then subsequently updated. The local investigation highlighted the proximity of Lasham to RAF Odiham and how this created a crossroads in terms of glider routeings northbound and Odiham recoveries from the west.

2 Gp BM Analysis: The actions of the Odiham Approach controller were standard throughout, providing accurate and timely Traffic Information. Whilst the Airprox occurred at a point where they were engaged on a landline, they had provided updated Traffic Information ahead of the landline call.

**UKAB Secretariat**

An analysis of the NATS radar replay was undertaken and the Apache was positively identified from Mode S data (Figure 4). The ASW27 could not be observed on the NATS radar replay.

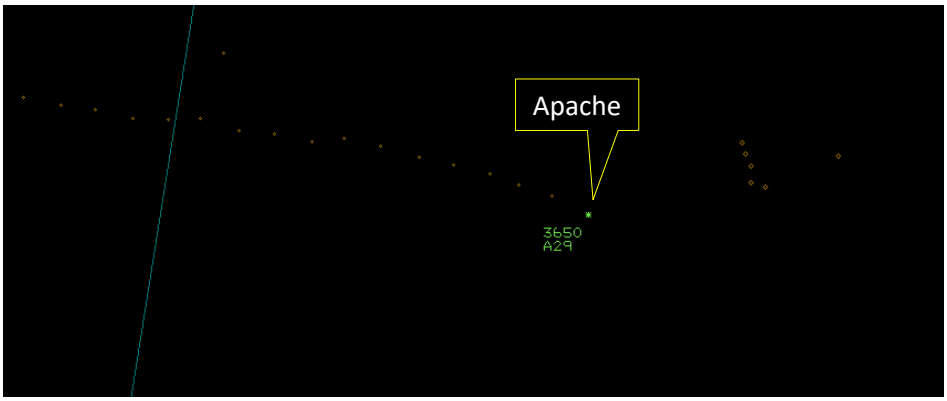



Figure 4 – CPA at 1208:38 from NATS radar data

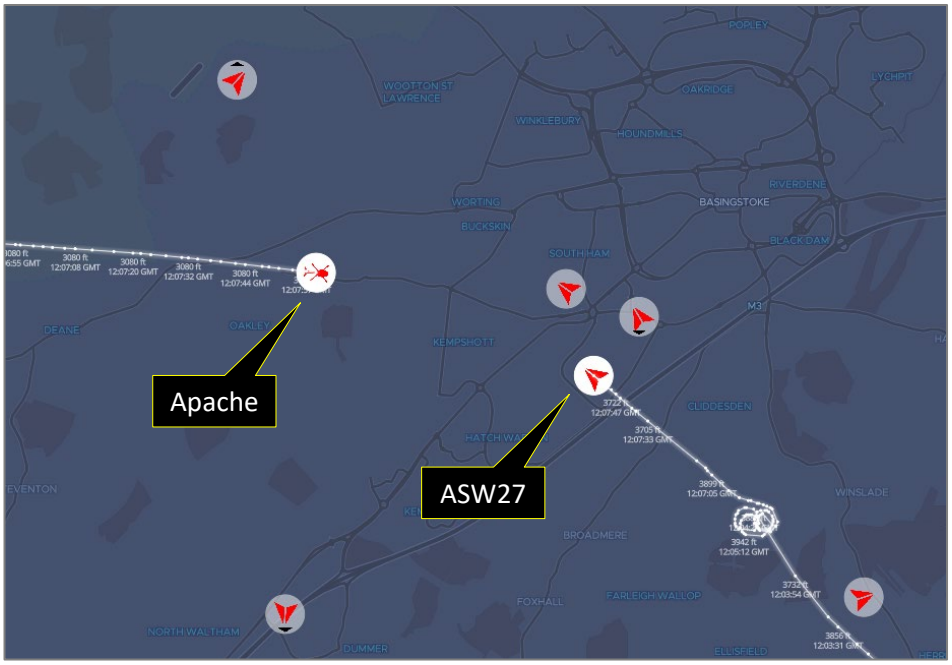



Figure 5 – The traffic situation at 1208 (38sec before CPA) from GPS data

[1] Odiham Radar is located at RAF Brize Norton as part of the South Terminal Air Traffic Control Centre.

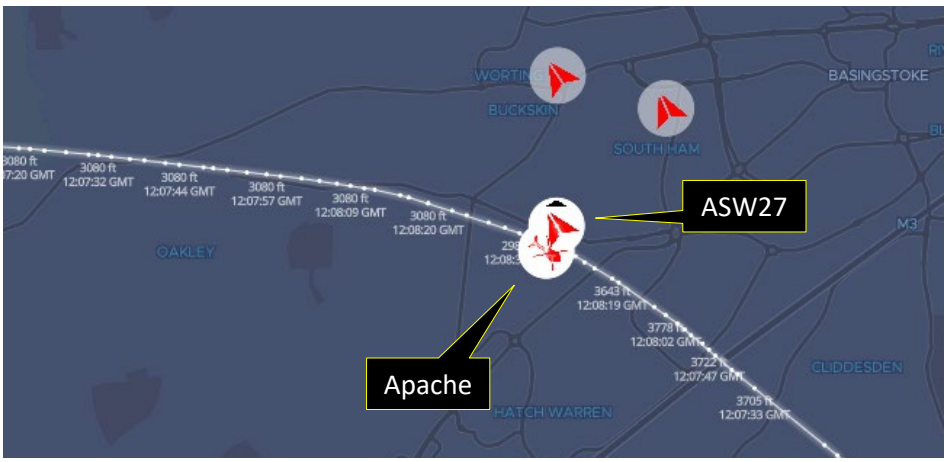



Figure 6 – 1208:40 (2sec after CPA) from GPS data

The pilot of the ASW27 kindly supplied GPS track data for their flight. The diagram was constructed and the separation at CPA determined by combining the various data sources. CPA was assessed to have occurred at 1208:38.

The Apache and ASW27 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] If the incident geometry is considered as converging then the Apache pilot was required to give way to the ASW27.[4]

## Comments

### JAC

After investigating the Airprox incident, it was found that several contributing factors led to the situation. These factors included the decision to operate in airspace with a high risk of an Airprox. The geographical layout of Odiham, with its extended runway centreline, combined with the presence of Lasham and Basingstoke (acting as a thermal heat source), created an invisible 'crossroads' where a glider could potentially manoeuvre. Choosing to operate IFR in VMC above a high-density gliding site was an elective decision and it was influenced by the requirements of the IRT. The pilot took measures by operating 1000ft higher than usual to ensure greater separation and planned the IRT profile to allow for increased vigilance in the most critical areas – a strategy that prevented a MAC. Additionally, it was noted that Civil Aviation regulations do not mandate the recognition of a MATZ by GA pilots, which could further compromise safety measures.

Following the Airprox incident, several corrective actions have been implemented. Changes have been made to IFR operations at Odiham to conduct procedural-hold activities away from the busy airspace around Lasham. Local procedures have been established to improve awareness of forecasted activities, and daily communication between the Duty Aviator at Middle Wallop and Lasham has been enhanced. Furthermore, Middle Wallop has established an ongoing partnership with Lasham, including organising forecast events to promote mutual awareness and understanding.

[2] (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.
[3] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on. MAA RA 2307 paragraph 13.
[4] (UK) SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

**BGA**

Lasham airfield is home to one of the largest gliding clubs in the world, with more than 220 gliders based there. On a good cross-country soaring day, up to 120 pilots launch from there in the late morning, each thermalling locally to gain height before setting off on cross-country flights.

In November 2024, Lasham Gliding Society instituted a daily coordination email message sent at 0800L to the operators of nearby aerodromes, outlining the level of gliding-related activity to be expected near Lasham that day. On days where cross-country gliding tasks are expected to be flown, this message includes an estimate of their number, and the likely directions of the outbound and return legs. As of February 2025, this daily email is sent to RAF Odiham, MoD Boscombe Down and Farnborough. Other local aerodromes wishing to be added to the recipient list should contact office@lasham.org.uk (01256 384900).

**Summary**

An Airprox was reported when an Apache and an ASW27 flew into proximity over Basingstoke at 1209Z on Friday 13th September 2024. The Apache pilot was operating under IFR in VMC in receipt of a Traffic Service from Odiham Approach and the ASW27 pilot was operating under VFR in VMC listening-out on the Lasham gliding frequency.

## PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data from the flight of the ASW27, 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 pilot of the Apache. Members noted that they had intended to conduct an approach to Odiham that had initially involved positioning under their own navigation to the south-west of Basingstoke. Members noted that the pilot of the Apache had been in receipt of a Traffic Service from the Odiham Approach controller and recalled the wording in CAP774:

> 3.1 A Traffic Service is a surveillance based ATS, where in addition to the provisions of a Basic Service, the controller provides specific surveillance-derived traffic information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the pilot remains responsible for collision avoidance.
>
> 3.6. Deconfliction is not provided under a Traffic Service. If a pilot requires deconfliction advice outside controlled airspace, Deconfliction Service shall be requested.

Members noted that, approximately 1min before CPA, the pilot of the Apache had received information on "*traffic, east, 3 miles, tracking northwest, no height information, possible glider*" to which they had responded "*traffic not sighted*". Updated Traffic Information had been passed 20sec later; "*previously called traffic, east, 2 miles tracking northwest, no height information, 3 tracks, possible gliders*". The pilot of the Apache reported "*still not sighted*". Members noted that, shortly afterwards, the ASW27 had been visually acquired and the pilot of the Apache had subsequently taken avoiding action to increase the separation between the aircraft.

Members next considered the actions of the pilot of the ASW27. A member with specific knowledge of gliding operations explained that, on the day in question, although there had not been an organised cross-country competition from Lasham, the weather had been particularly favourable and that had attracted an unusually high number of gliding flights for the time of year.

Members turned their attention to consider the airspace involved and appreciated that civil recognition of a MATZ is not mandatory. However, it was agreed that it would be strongly recommended for a

civilian pilot to contact the applicable ATSU well before entering a MATZ. It was noted that Lasham airfield lies within the Odiham MATZ and, therefore, pilots whose flights had originated from Lasham would have immediately entered the Odiham MATZ upon takeoff. A member with particular knowledge of operations at Odiham explained that procedures had been established to facilitate the passage of information between Odiham and Lasham regarding expected levels of traffic in the area. However, It was noted that the Odiham ATSU had not been informed of increased gliding activity, nor that Odiham ATSU had informed Lasham of an Apache inbound to Odiham on an IFR procedure to RW27. Members were heartened to learn that communication between Odiham and Lasham has continued to improve since this Airprox occurred.

Notwithstanding that there had not been an organised cross-country competition underway, the Odiham Approach controller had not been pre-warned to have expected a high level of gliding traffic. Members agreed that it may have been prudent for the pilot of the ASW27, or for a representative, to have assisted the Odiham ATSU with their situational awareness and to have informed them of their intention to cross the Odiham RW09/27 extended centreline (**CF1**).

Members agreed that the EC device fitted to the ASW27 would not have been expected to have detected the Apache (**CF3**) and, consequently, they had not had situational awareness of the presence of the Apache until it had been visually acquired (**CF2**).

Members turned their attention to the actions of the Odiham Approach controller. It was noted that they had passed Traffic Information to the pilot of the Apache on a contact that they had seen on their radar display. It was further noted that, as the pilot of the Apache had not gained visual acquisition of the contact, updated Traffic Information had been provided, that time with more detail. It was noted, however, that no height information had been available to the Odiham Approach controller. Members felt that it had, perhaps, been a case of unfortunate timing that the Odiham Approach controller had been engaged on the telephone with Odiham Tower at the moment that the pilot of the Apache had declared the Airprox on frequency. Nevertheless, members agreed that there had been little else that they could have done to have assisted matters.

Concluding their discussion, members agreed that the pilot of the Apache had been passed sufficient Traffic Information from the Odiham Approach controller to have aided their visual acquisition of the ASW27. Although the pilot of the Apache had been concerned by the proximity of the ASW27 (**CF4**), members agreed that timely and effective avoiding action had been taken. Members agreed that the pilot of the ASW27 had also sighted the Apache in time to have taken timely and effective avoiding action. Members concluded that, although safety had been degraded, the decisive action taken by both pilots had removed all risk of collision. The Board assigned Risk Category C to this event.

## PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

| | **2024235** | | | |
|---|---|---|---|---|
| CF | **Factor** | **Description** | **ECCAIRS Amplification** | **UKAB Amplification** |
| | **Flight Elements** | | | |
| | **• Tactical Planning and Execution** | | | |
| 1 | Human Factors | • Accuracy of Communication | Events involving flight crew using inaccurate communication - wrong or incomplete information provided | Ineffective communication of intentions |
| | **• 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 |
| | **• Electronic Warning System Operation and Compliance** | | | |
| 3 | 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** | | | |

| | | | | |
|---|---|---|---|---|
| 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[5]

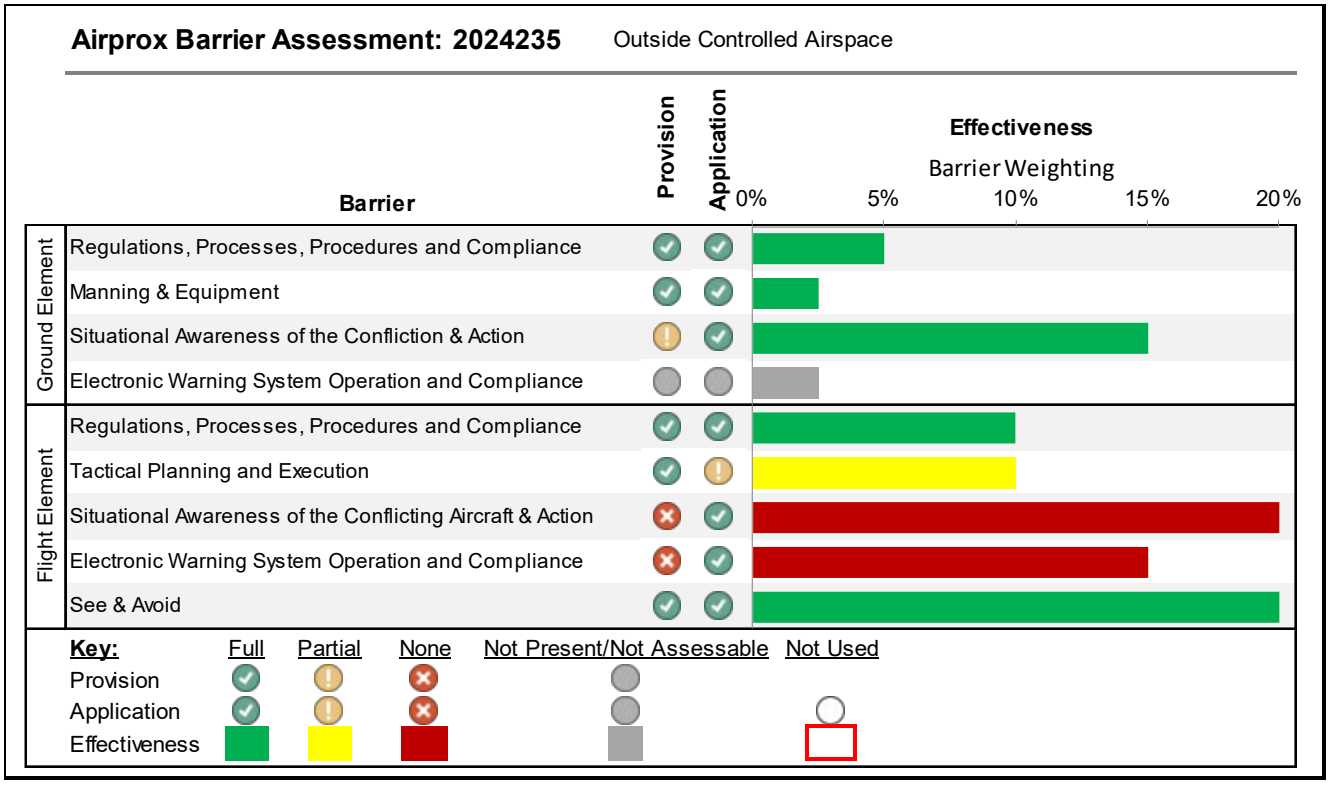
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

**Flight Elements:**

**Tactical Planning and Execution** was assessed as **partially effective** because it may have been prudent for the pilot of the ASW27 to have relayed their intended route to the Odiham controller.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because the pilot of the ASW27 had not had situational awareness of the presence of the Apache until it had been visually acquired.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because the EC equipment fitted to the ASW27 would not have been expected to have detected the presence of the Apache.




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