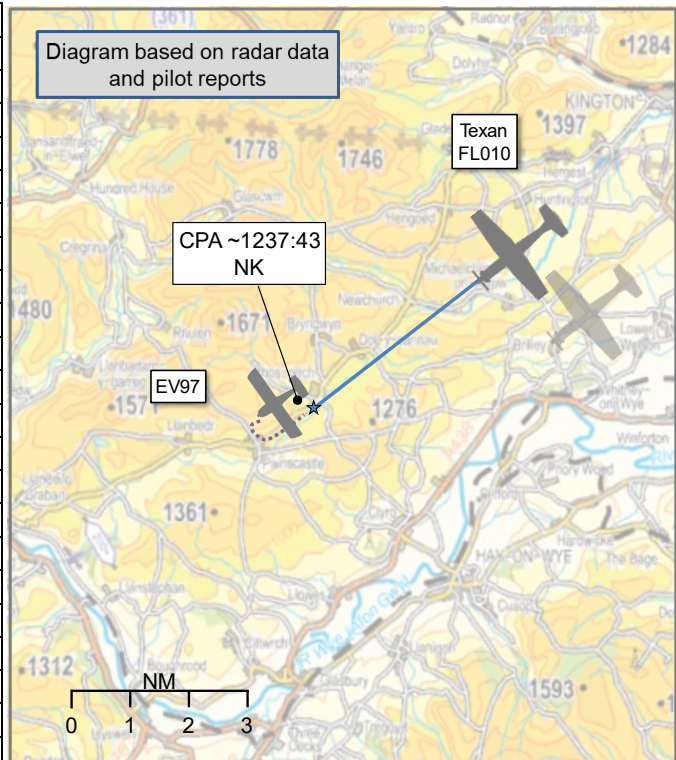


AIRPROX REPORT No 2023170

Date: 07 Aug 2023 Time: ~1238Z Position: 5207N 00311W Location: Lane Farm Airpark

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Texan	EV97
Operator	HQ Air (Trg)	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	None
Provider	LL Common	
Altitude/FL	FL010	NK
Transponder	A, C, S+	A, C, S
Reported		
Colours	Black, Yellow	Silver
Lighting	Nav, Anti-cols	None
Conditions	VMC	VMC
Visibility	NR	>10km
Altitude/FL	350ft	NK
Altimeter	AGL	NK
Heading	240°	060°
Speed	NR	NK
ACAS/TAS	TCAS I	Not fitted
Alert	TA	N/A
Separation at CPA		
Reported	150ft V/200m H	50ft V/300-400m H
Recorded	NK	



THE TEXAN PILOT reports that, during a low-level sortie in LFA 7, whilst conducting a re-attack of a target in 'Line Abreast', both aircraft in the formation had an intermittent TCAS contact roughly co-alt, 10NM in the 12 o'clock. Due to the sporadic nature of the Texan TCAS in azimuth, it was decided to continue with the route and try and visually spot the traffic, whilst at the same time putting out a position call on LL Common [frequency]. With no response heard and the TCAS on both aircraft now clear, the heading was maintained until both pilots had a late spot of a GA aircraft, it was assessed to be below and to the right of the formation, on a reciprocal heading. Once clear of the conflict, the sortie was continued.

Once on the ground, it was discovered that the approximate location hosted a small airstrip (Lane Farm Airpark), whose layout would be consistent with a light aircraft on short final where the sighting occurred. However, this was only discovered through Google Maps.

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

THE EV97 PILOT reports they were practising an approach to Lane Farm from the west and about half way down the strip they increased power to climb out, when they saw a Texan above and to their right, approximately 300-400m south of the runway. They then landed from the east without incident.

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

Factual Background

The weather at Gloucestershire and Cardiff was recorded as follows:

METAR EGBJ 071220Z 22008KT 180V250 9999 SCT028 19/12 Q1019=
 METAR EGFF 071220Z AUTO 27012KT 230V290 9999 SCT021 BKN043 17/12 Q1021=

Lane Farm is not depicted on the standard CAA and military VFR charts, but can be found by Google search:

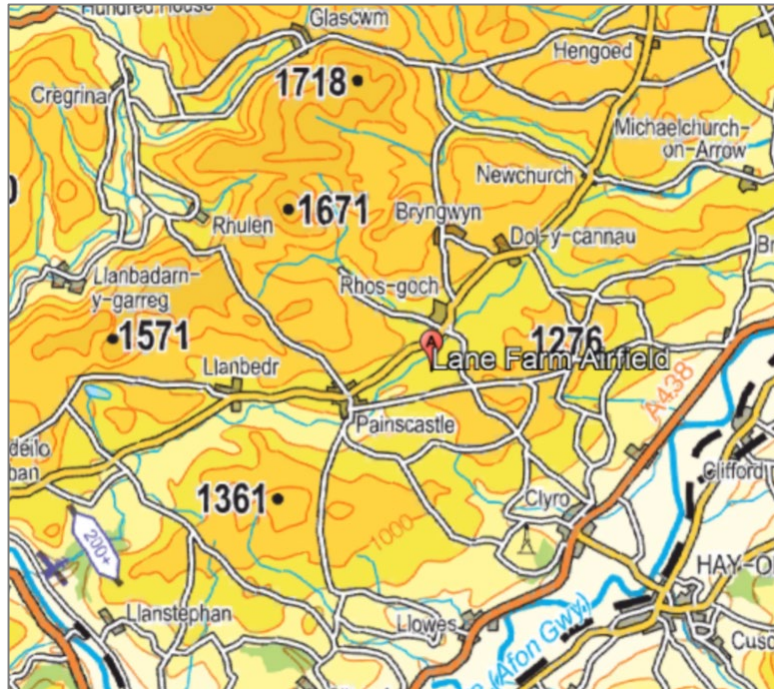


Figure 1

Details about Lane Farm airfield can be found on their website as follows:

52°07'00"N
03°11'30"W

LANE FARM

830'AMSL

Field is located: 4 NM N.W. of HAY-on-WYE.

RUNWAYS GRASS 06/24 (730m)

Comments: There are 50' trees at either end of strip and 11Kva wires on the North West side running parallel to runway.

Note: Cables on approach to 06.

CIRCUITS/NOISE

Avoid local villages.

Figure 2

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. Both aircraft were visible on the radar and identifiable from Mode S data (see Figure 3). The white cross represents the position of Lane Farm Airpark.

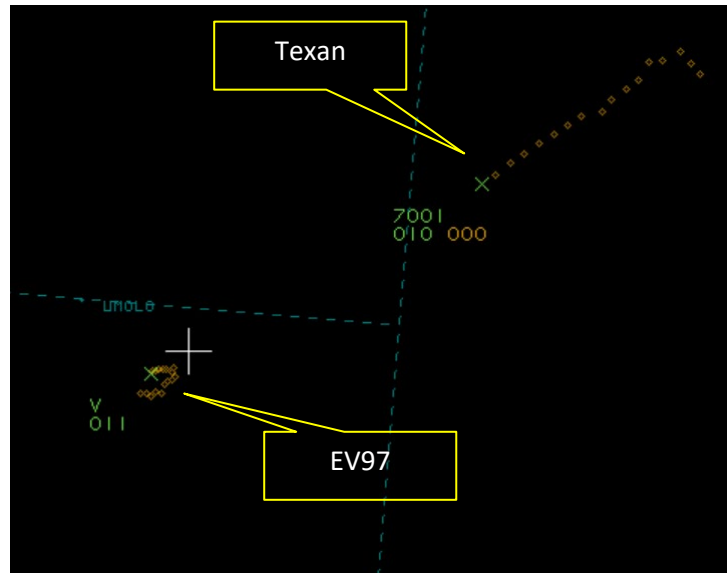


Figure 3

By 1237:18 the Mode C on the EV97 was not available, probably due to the height of the aircraft; the Texan could be seen continuing on track, indicating FL010 (Figure 4).

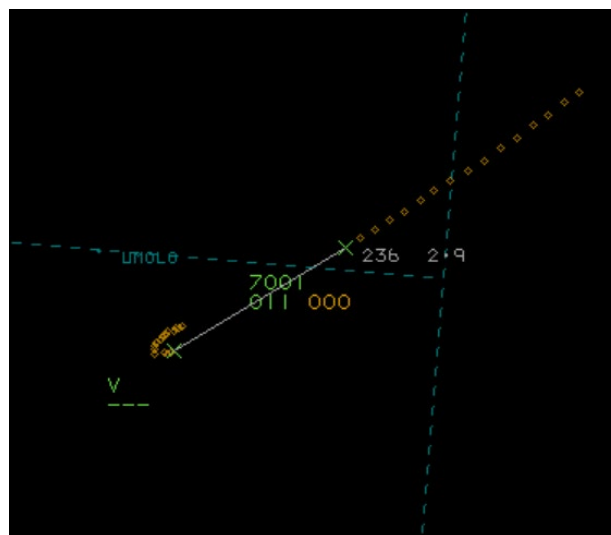


Figure 4 - 1237:18

Shortly afterwards the EV97 faded from the radar, the Texan continued on track and CPA probably occurred at approximately 1237:43 when the Texan appeared to be overhead the airfield (Figure 5). The exact separation could not be measured. At 1237:59, after CPA, the EV97 again appeared on radar, as it climbed out. By this time the Texan was well to the southwest of the airfield (Figure 6).

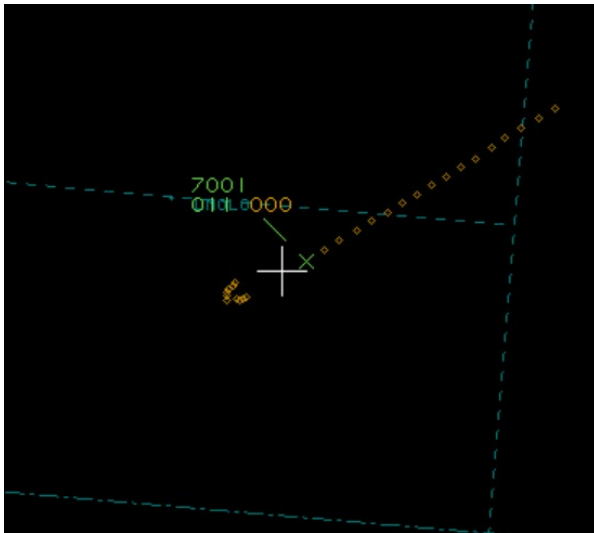


Figure 5 – Probable CPA, 1237:43

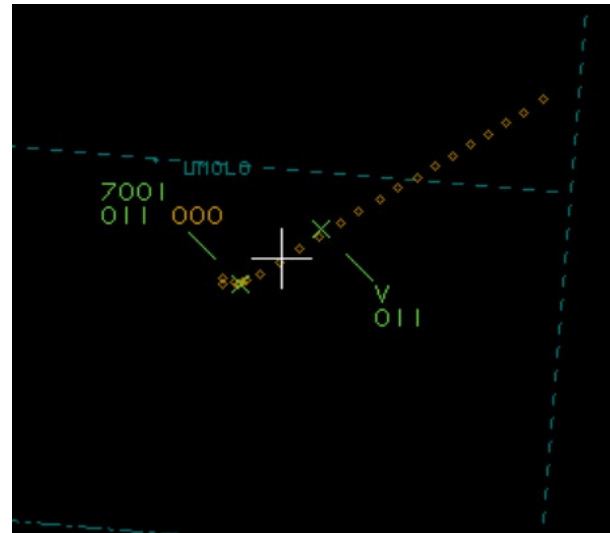


Figure 6 - 1237:59

The Texan and EV97 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 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.²

Comments

HQ Air Command

The local investigation revealed that this airfield was not marked on the military low flying chart, so the Texan crew are unlikely to have known the EV97 was on an approach to Lane Farm. In this case it is unlikely that the pilot of the EV97 would be monitoring LL Common and Safety Common would be more appropriate. The RAF continues to publicise internally the utility of LL Common, but also the fact that not all other airspace users will necessarily monitor that frequency. Likewise, the RAF continues to work with the CAA to encourage civilian use of LL Common where appropriate. In this case, any practical mitigation of MAC through use of a common frequency seems unlikely. It's encouraging to see the EC was effective in alerting the Texan crew of the EV97, which augmented the 'see and avoid barrier'. The location of minor aerodromes on charts is subject to an assurance process and there are criteria defining the threshold for display on the charts. In this case that threshold is unlikely to have been met, but the occurrence serves as a timely reminder for the necessity of regular review.

AOPA

This airpark has been in existence for a number of years. Whilst it has a low number of movements each year and is strictly PPR, local pilots are aware of low-level flying training in the area and know to keep a good lookout and listen on the Low Level frequency.

Summary

An Airprox was reported when a Texan and an EV97 flew into proximity at Lane Farm Airpark at around 1238Z on Monday 7th August 2023. Both pilots were operating under VFR in VMC, neither pilot in receipt of an ATS.

¹ UK Reg (EU) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

² UK Reg (EU) SERA.3225 Operation on and in the Vicinity of an Aerodrome. MAA RA 2307 paragraph 17.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs 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 looked at the actions of the Texan pilot. Noting that the pilots would have thoroughly planned their route beforehand, members discussed the availability of the information on Lane Farm Airpark. They noted that details of the airstrip had not been available on any of the military flight-planning sources (**CF1**, **CF3**) and whilst some members noted that the airstrip was displayed on EFB navigation tools (which were not used by the military), even that was only visible if the 'airstrips' selection was made. The Board acknowledged that there were too many small airstrips to be displayed on standard VFR charts, which would become too cluttered if every one were depicted, and noted that a pragmatic approach therefore had to be made about what was, or was not, depicted depending upon numbers of movements per day. The Texan pilot therefore had no prior knowledge about the airstrip, however, the TCAS had alerted them to the presence of an aircraft ahead (**CF7**). The pilot reported that this alert had focused their attention ahead and the military members confirmed the Texan pilot's view that azimuth information was not reliable on the TCAS. Members acknowledged that the Texan pilot had had a mission to complete and had been required to be in the area, but still wondered why, having received the TCAS alert and having gained generic information that another aircraft had been in the vicinity (**CF6**), the pilot had not climbed to introduce some vertical separation from the contact (**CF5**). Although they acknowledged that, with hindsight, it could be surmised that the TCAS alert had disappeared because the EV97 had descended, still members thought that, strictly speaking, it had been for the Texan pilot to avoid the pattern of traffic that the EV97 had been forming at Lane Farm Airpark (**CF2**, **CF4**). The Board agreed that, in the end, the Texan pilot had seen the EV97 late (**CF8**) and had been concerned by its proximity (**CF9**).

Turning to the actions of the EV97 pilot, members noted that they had been operating from the airstrip and listening out on SafetyCom. Members briefly discussed whether the pilot could have operated on the VHF LL common frequency, because that would have been the frequency used by any military pilot low-flying in the area. However, it was quickly agreed that calling on the LL frequency would not have guaranteed being heard by the pilots flying in the area, but also even if the EV97 pilot had reported that they were operating out of Lane Farm Airstrip, the Texan pilots would not have known where that was situated, so it would have been of little or no benefit. Still, some members thought that a quick call on the LL frequency prior to getting airborne could potentially be of some use. GA members with knowledge of Lane Farm Airstrip noted that it had very few movements and operated on a PPR basis only, so that any pilots operating there were well aware of the potential for low-flying military aircraft. Indeed, it appeared from the EV97 pilot's report that, despite not having had any prior situational awareness about the approaching Texan (**CF6**), they had not been too concerned by the encounter.

When determining the risk, the Board considered the reports from both pilots together with the radar screenshots. They noted that the Texan pilot had not had any prior information on the position of the airstrip, but had received a TCAS alert, which had focused their attention and had enabled them to see the EV97, albeit late, and assess that no avoiding action had been necessary. For their part, the EV97 pilot had seen the Texans above and to their right, had not been concerned by the incident and they had assessed the risk as 'low'. The Board therefore quickly agreed that although safety had been degraded, due to the Texan pilots having had no knowledge that the airstrip existed, because the separation had been such that avoiding action had not been necessary, there had been no risk of collision; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**Contributory Factors:**

2023170				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Organisational	• Flight Operations Documentation and Publications	Flight Operations Documentation and Publications	Inadequate regulations or procedures
2	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
• Tactical Planning and Execution				
3	Organisational	• Flight Planning Information Sources	An event involving incorrect flight planning sources during the preparation for a flight.	
4	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				
5	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
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	Contextual	• ACAS/TCAS TA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system traffic advisory warning triggered	
• 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
9	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 Assessment³

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

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the Texan pilots were required to conform with, or avoid, the pattern of traffic formed by the EV97.

Tactical Planning and Execution was assessed as **partially effective** because the planning sources available to the Texan crew did not have details of Lane Farm Airpark.

³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Texan pilots had generic information from the TCAS on the EV97, but the EV97 pilot had received no situational awareness about the Texan.

Airprox Barrier Assessment: 2023170		Outside Controlled Airspace						
Barrier		Provision	Application	Effectiveness Barrier Weighting				
				0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	○	○					
	Manning & Equipment	○	○					
	Situational Awareness of the Conflication & Action	○	○					
	Electronic Warning System Operation and Compliance	○	○					
Flight Element	Regulations, Processes, Procedures and Compliance	✓	!					
	Tactical Planning and Execution	!	✓					
	Situational Awareness of the Conflicting Aircraft & Action	✗	✓					
	Electronic Warning System Operation and Compliance	!	✓					
	See & Avoid	✓	✓					
Key:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✓	!	✗	○				
Application	✓	!	✗	○	○			
Effectiveness	■	■	■	■	□			