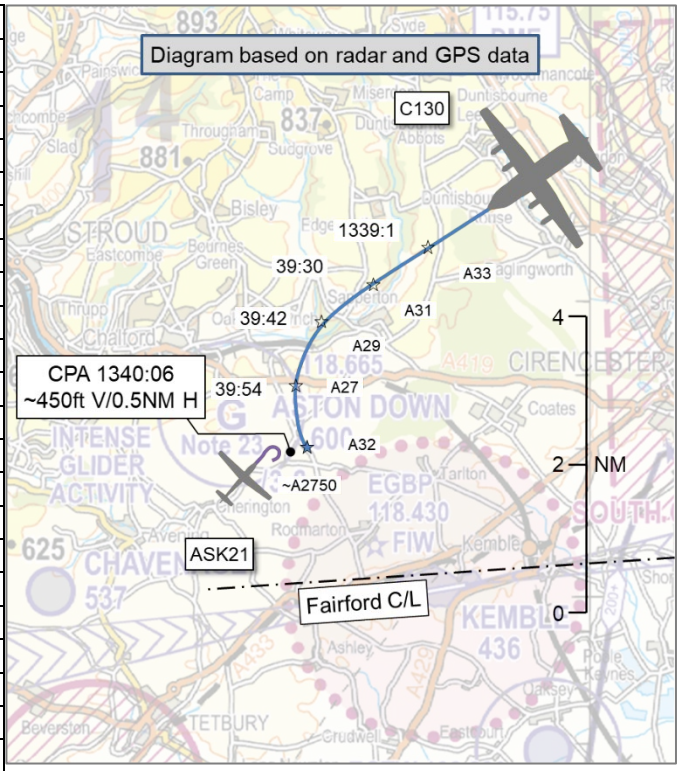
AIRPROX REPORT No 2025077

Date: 05 May 2025 Time: 1340Z Position: 5142N 00207W Location: 3NM NW Kemble

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C130	ASK21
Operator	Foreign Mil	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Traffic	Listening Out
Provider	Brize Norton	Aston Down
Altitude/FL	3200ft	~2750ft
Transponder	A, C, S	Not fitted
Reported		
Colours	Grey	White/orange
Lighting	Nav, anti-col	Not fitted
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2500ft	2000ft
Altimeter	QNH (NK hPa)	QFE (NK hPa)
Heading	200°	020°
Speed	200kt	60kt
ACAS/TAS	TCAS II	FLARM
Alert	None	None
Separation at CPA		
Reported	0ft V/<1NM H	100ft V/<1km H
Recorded	~450ft V/0.5NM H	



THE C130 PILOT reports having just exited the Daventry corridor under a Traffic Service from Brize Radar, the crew of [C130 C/S] requested vectors for the ILS RW09 at Fairford. Brize provided a vector to the southwest and a descent to 2500ft. As [C130 C/S] approached Aston Down glider site, the crew sighted a glider at 12 o'clock, approximately 1NM, co-level. The crew immediately turned the aircraft through 90° to the left to avoid the glider. Nothing was showing on TCAS. The crew called the turn for traffic to Brize Radar. Brize then offered a vector left (the long way round) to try again. As this would have taken the aircraft back through the same point the crew requested to continue visually to the field. Brize advised that they could not see any traffic on radar in the vicinity.

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

THE ASK21 INSTRUCTOR reports on a local instructional flight in a straight glide to the east of Aston Down airfield, moving south-to-north parallel to the main runway at approximately 2000ft QFE. The student and Instructor both visually identified the other aircraft at a range of 2km and approximately the same level, just left of the nose. They noted after a few moments that their paths were converging and that conflict would be likely, so performed a right turn as avoiding action. They later learnt that the other aircraft was following an approach procedure to Fairford and was in a wide left turn to line up with the runway. The C130 turn appeared to tighten after their avoiding action, suggesting they may have seen them after they started their turn. When they completed their avoiding turn and regained visual contact with the other aircraft, they could confirm that the aircraft had turned away and was no longer a threat. The other aircraft involved in the Airprox was less than 1.5km from the main runway of Aston Down gliding site, which is an active winch launching site 7 days a week up to 3600ft AMSL. Shortly after the Airprox, a second aircraft was seen flying a similar approach path to Fairford, close to Aston Down, west and then south of the airfield at a similar distance. This prompted a phone call to Brize Norton ATC to raise the issue, who reported that Fairford was using an approach procedure which involved

routeing aircraft close to Aston Down. At least 3 aircraft were observed close to Aston Down using this procedure during the day of the Airprox.

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

THE BRIZE NORTON CONTROLLER reports they were bandboxed with Zone and Director with no aircraft on frequency. [C130 C/S] was handed over from Swanwick for an ILS to Fairford. They vectored and descended them according to SOPs. When about 5NM northwest of Kemble, they called Traffic Information to them on a primary contact which was 6NM southwest, tracking southeast, slow moving and added that it may be traffic around Aston Down. They turned them south to ensure they stayed to the east of Aston Down, allowed enough time for the traffic called not to be a factor, and then turned them left 130° for the localiser cut for Fairford RW09 ILS. They did not respond, and the controller updated them on the previous traffic which was then overhead Kemble, routeing south. [C130 C/S] took a dog-leg turn east and then informed them they were avoiding a co-level glider that was not squawking or on their radar. The controller acknowledged and offered a re-feed, and then a visual recovery instead. The radar picture only showed 2 contacts, one of which was a factor and the other no factor. The glider that the pilot avoided did not show on their radar, which they believed might be down to the known speed gate issue with the radar. The controller noted that the radar cannot pick up traffic moving slowly, such as gliders, which does not allow ATC to call Traffic Information to pilots in the area. A mid-air collision may happen if ATC cannot see traffic and other barriers fail.

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

THE BRIZE NORTON SUPERVISOR reports they were ATCO I/C at the time of the incident. They did not witness it because they were preparing to handover the Watch Log, and had nothing to add.

Factual Background

The weather at Gloucester and Brize Norton was recorded as follows:

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METAR EGBJ 051350Z 01011KT 9999 VCSH FEW040 SCT046 14/02 Q1023=
METAR EGVN 051350Z 05016KT 9999 FEW048 BKN055 14/01 Q1022 NOSIG=
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Analysis and Investigation

Military ATM

An Airprox occurred on 5 May 25, 1NM northeast of Aston Down at 1340 UTC. The C130 was inbound to RAF Fairford with radar vectors for the ILS and in receipt of a Traffic Service from Brize Norton Director. The ASK21 was conducting a local instructional flight and listening out on the Aston Down gliding site frequency.

Background

The Brize Norton controller was working multiple radar positions of Director, Approach and Zone, however, the only aircraft in receipt of an ATS was the C130. Brize Norton provides a radar service for all RAF Fairford arrivals and departures.

Sequence of Events

At 1335:29, the C130 transferred to Brize Norton Director at FL100 with a Traffic Service.

At 1336:18, the Brize Norton Director controller issued "*turn right heading 240° and descend to altitude 2500ft, Fairford altimeter 30.19*".

At 1338:16, Traffic Information was provided to the C130 [pilot] regarding possible glider traffic "*traffic southwest 6 miles manoeuvring no height information, might be a glider or an aircraft operating around Aston Down*". The C130 [pilot] responded with "*searching*".

At 1338:47, updated Traffic Information was provided "*previously reported traffic is now 11 o'clock, 4 miles, manoeuvring now indicating 2300ft below*". The C130 [pilot] again responded with "*searching*".

At 1339:26, the Brize Norton Director controller issued a left turn to 180° to ensure the C130 remained east of Aston Down gliding site, before then a further turn to 130° at 1339:56 to intersect the ILS.

At 1340:10, the Brize Norton Director controller provided an update on the previously called Traffic Information, informing the C130 [pilot] that their ILS intersect heading would route them behind the traffic as it tracked south. The C130 [pilot] reported the ASK21 being co-altitude and that the C130 had manoeuvred.

CPA unknown as the AKS21 could not be tracked on radar.

Local Investigation

The Brize Norton investigation did not identify any ATS-related causal or aggravating factors, deeming the ATS provision of the Brize Norton Director suitable given that the ASK21 did not display on radar.

2 Gp BM Analysis

The proactive Traffic Information and considered routeing provided by the Brize Norton Director controller showed a suitable standard of ATS provision. Unfortunately, the ASK21 did not display on the surveillance radar screen through either traditional surveillance sources or through ADS-B detection and therefore Traffic Information on the ASK21 to the C130 [pilot] was unachievable.

UKAB Secretariat

The C130 and ASK21 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]

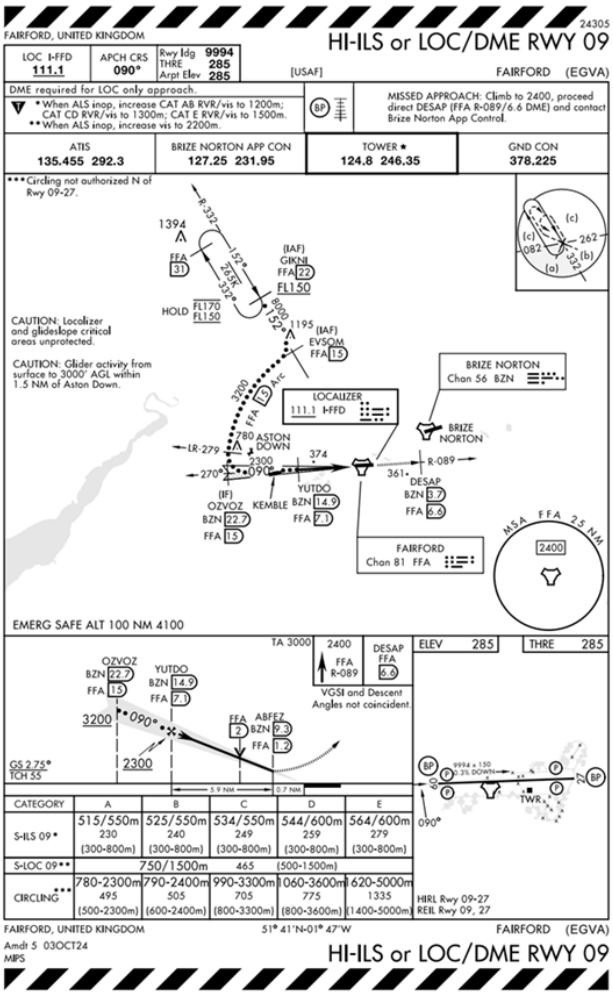
[1] (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

Comments

USAFE

The Radar approach function for RAF Fairford is provided by RAF Brize Norton. RAF Fairford ATC regularly engages with the local GA community, including Aston Down, in order to adjust and mitigate against Airprox and MAC. RAF Fairford is primarily a transient aircraft base. The crew of the C130, whilst UK based and intimately familiar with UK procedures, rely on ATC and FIS to support their preflight briefing and decision-making during operations to less familiar airfields.

Following this (and another, yet to be reviewed Airprox in the area), RAF Fairford has re-engaged with RAF Brize Norton to suggest amendments to their SOPs. Aston Down and Brize Norton may wish to consider implementing procedures notifying of activity which may not be seen on radar, which may assist with situational awareness and decision-making by the Brize controller. USAFE is supportive of the CAA's CAP3140 CONOP consultation and potential future EC mandate which may address the conspicuity of aircraft that do not reliably show on radar and are difficult to acquire visually.



BGA

This incident occurred on a Bank Holiday Monday less than 1NM from Aston Down, a busy gliding site that operates every day in the summer months, and (like all permanent UK gliding sites) is listed in AIP ENR 5.5 and marked on CAA VFR charts. A greater density of gliders (and aircraft towing gliders) may be expected nearby at any time during daylight hours, and at any altitude up to cloudbase. The maximum altitude of winch launch cables at Aston Down is 3600ft AMSL; this is also listed in the AIP and marked on CAA VFR charts.

It's concerning that the C130 was vectored directly towards this active gliding site with a descent to 2500ft AMSL, which is 1100ft below its maximum winch launch altitude. This potentially put the C130 at risk of encountering high tensile strength cable connecting a launching glider to the winch on the ground. When the C130 crew turned away after sighting the glider at 1NM range, they also fortuitously avoided the winching operation. They are to be commended both for their effective lookout and their refusal to be vectored through this area a second time.

RAF Fairford Instrument Approach Procedures (IAPs) are not published; doing so would help non-military users of nearby uncontrolled airspace (including the Aston Down gliding operation) assess the risk of conflict with Fairford IAP traffic.

Although few gliders in the UK are fitted with Mode C/S transponders, almost all (including this ASK21) carry proprietary Electronic Conspicuity (EC) equipment that enables their position and altitude to be displayed on a Flight Information Display (FID) with GPS accuracy. Commercially-

available FIDs that integrate transponder, glider EC and ADS-B data in a single display in real-time give ATSU controllers situational awareness of gliding activity across the UK. The BGA would be happy to advise any ATSU wishing to use readily-available, real-time EC data to enhance flight safety in this way.

Summary

An Airprox was reported when a C130 and an ASK21 flew into proximity near Aston Down at 1340Z on Monday 5th May 2025. Both pilots were operating in VMC, the C130 pilot under IFR in receipt of a Traffic Service from Brize Norton and the ASK21 pilot under VFR, 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, 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 members were first briefed by the USAFE advisor that the C130 crew had planned an exercise with specific risk mitigation for the 'gliding risk', namely an emphasis on lookout by the entire front and rear crew. They noted that the Fairford IAP was specifically designed to avoid the Aston Down overhead. The C130 pilot had requested a radar vectored ILS which had been provided by the Brize controller. The Board questioned the wisdom of vectoring the C130 in the vicinity of Aston Down gliding site but noted that the Brize controller had been aware that Aston Down had been active and had vectored the C130 to the east of the contacts that had been displayed on their radar console. It so happened that the Airprox ASK21 had not been displayed on console and consequently that the Brize controller had had no situational awareness of it (**CF1**) and could not have vectored the C130 around it. Members discussed the degree of coordination between military operations and civilian gliding nationally and a gliding member opined that, for example, such coordination was generally better in East Anglia and between Odiham and Lasham, where a broadcast on the relevant gliding radio channel helped to improve situational awareness for glider pilots. A military controller advisor commended the principle of information exchange to enhance effective coordination but noted that a degree of specificity was required, for example a statement of 'gliding activity within 30 miles of the overhead' did nothing to advance situational awareness beyond that already available from a general knowledge of gliding activity in the UK. They also briefed the Board that military ATM was looking to increase the availability of FLARM information within military control rooms in order to enhance the situational awareness of military controllers, but that this was subject to the stringent legal requirement to balance enhanced situational awareness from a non-certified source with the possibility that non-certified data could be erroneous and the safety consequences of that erroneous data on air traffic management safety.

The C130 crew had had only generic situational awareness of an increased likelihood of glider traffic, given that they were transiting close to a notified gliding site, and the combination of lack of surveillance response and incompatible EC equipment (**CF3**) meant the C130 crew had had no situational awareness on the ASK21 (**CF2**). The C130 pilot had manoeuvred once they had seen the ASK21 but had been concerned by its proximity (**CF4**). Two members felt that the degree of separation at CPA had been such that normal parameters had applied, Risk E, but the majority felt that the Airprox was best described as risk averted, due in no small part by the C130 pilot's avoiding manoeuvre, Risk C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025077			
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
	Flight Elements			
	• 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[2]

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

Ground Elements:

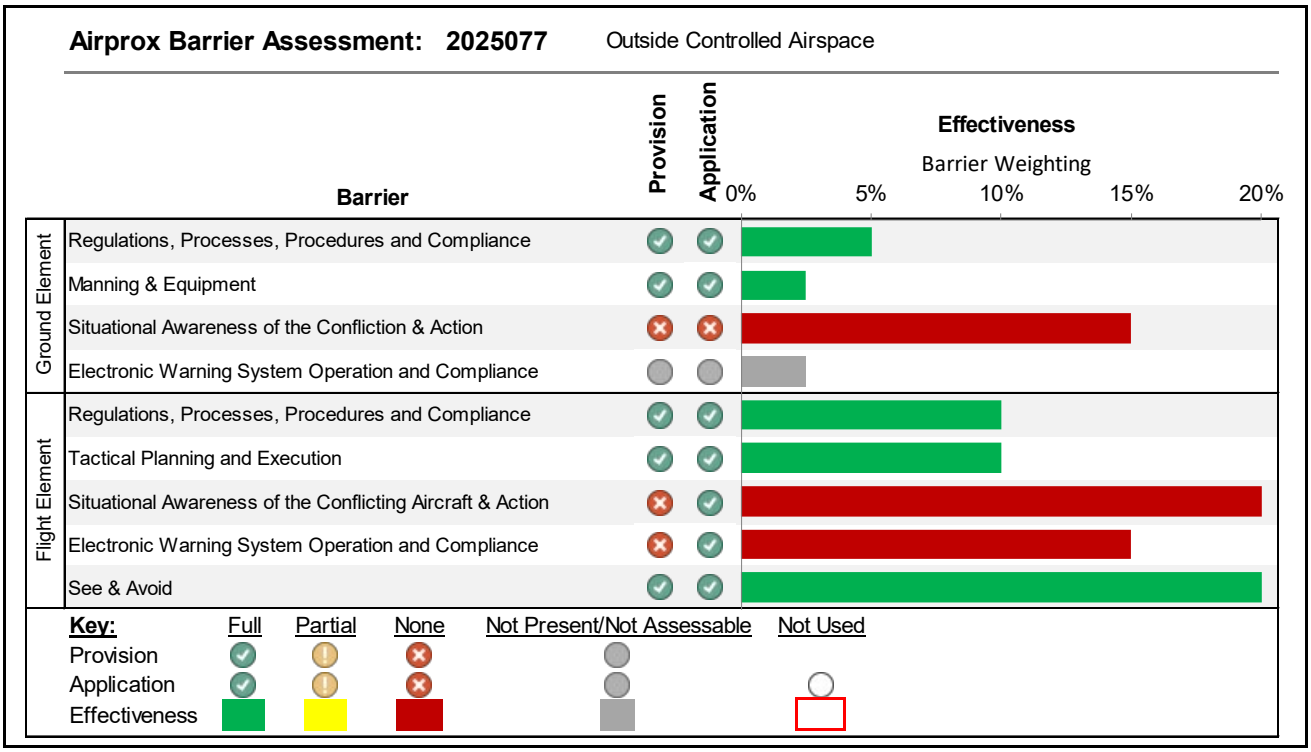
Situational Awareness of the Confliction and Action were assessed as **ineffective** because the Brize controller did not have situational awareness on the ASK21.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had situational awareness of the other aircraft before achieving visual contact.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the aircrafts' EC equipment fits were incompatible.

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


Airprox Barrier Assessment: 2025077
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 Confliction & 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:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness