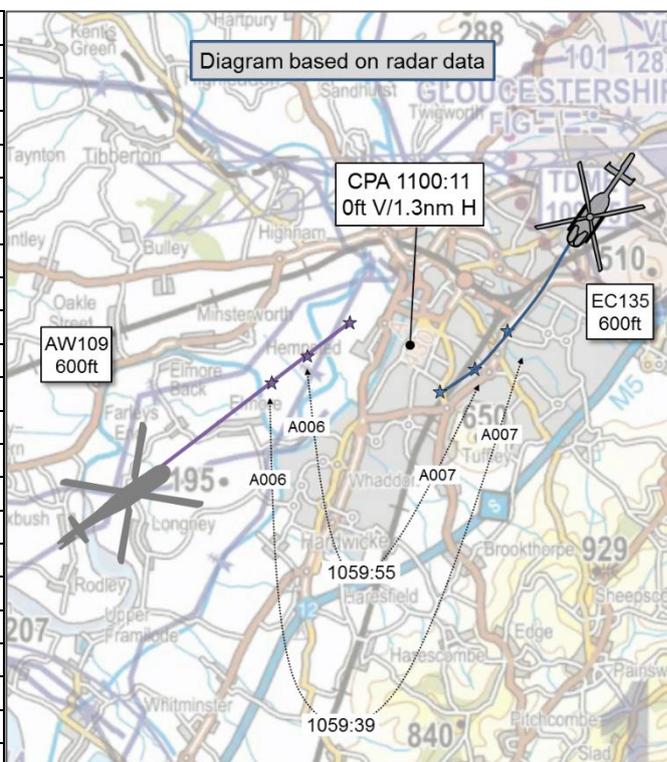


**AIRPROX REPORT No 2019317**

Date: 17 Nov 2019 Time: 1100Z Position: 5150N 00215W Location: 4NM SW Gloucestershire Airport

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	AW109
Operator	NPAS	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Gloster App	Gloster App
Altitude/FL	600ft	600ft
Transponder	A, C, S	A, C, S
<b>Reported</b>		
Colours	Blue, Yellow	White, Blue
Lighting	Strobes, HISL, Nav	'all lights on'
Conditions	VMC	VMC
Visibility	8km	5km
Altitude/FL	600ft	750ft
Altimeter	Rad Alt	QNH
Heading	226°	040°
Speed	110kt	130kt
ACAS/TAS	TCAS I	Unknown
Alert	TA	Unknown
<b>Separation</b>		
Reported	100ft V/NK H	Not Seen
Recorded	0ft V/1.3NM H	



**THE EC135 PILOT** reports that he had just departed from Gloucestershire Airport to return to his operating base. On the Gloucester Approach frequency he heard an AW109 pilot asking about the cloud-base and reporting that they were heading to Cheltenham racecourse. He heard them mention they were at 'the bends' (of the river Severn) and they were passed information that his EC135 was also in the area. Gloucester ATC reported 1000-1200ft cloud-base. The EC135 pilot then broadcast that he was currently experiencing 500-700ft cloud-base. At around this time, the AW109 pilot said they did not have TCAS. All this information led him to believe that it was some 5NM away, heading up the river towards Cheltenham at low-level. About 30secs later, as they progressed south and approaching west abeam Robins Wood Hill in Gloucester, he received a TCAS audio warning, the display showing an aircraft very near the centre of the range rings and 100ft below. The whole crew looked but could not see the conflicting traffic, so he executed a hard left level turn towards the hill initially, and then continued the level turn around the north of the hill to stay clear of cloud and increase the separation. He chose not to turn right as the threat indicated that it was in that direction.

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

**THE AW109 PILOT** reports that he was in the cruise to Cheltenham, when Gloucester ATC informed him of traffic in the opposite direction 2NM to the south at a similar level. He did not see the other aircraft.

**THE GLOSTER CONTROLLER** reports that the AW109 pilot reported inbound to Cheltenham via Gloucestershire airport and following the River Severn. The EC135 pilot, who had been hovering on RW27, declared RTB, and was given Traffic Information on the AW109. He asked for a cloud-base report, which had also been requested by the AW109 pilot, and the information was passed to both pilots. The AW109 pilot stated he would stay west initially, and the EC135 pilot was informed. The AW109 pilot was told that the EC135 would be tracking east of the 'bends'. Only the EC135 was visible

on radar, the pilot reported breaking left due to TCAS. A second reciprocal track was then seen about 1NM NW of the EC135's track. The pilot phoned later to report filing an Airprox.

## Factual Background

The weather at Gloucestershire Airport was recorded as follows:

METAR EGBJ 171050Z 00000KT 5000 HZ BKN012 OVC020 06/05 Q1011=

## Analysis and Investigation

### Gloucester ATC Occurrence Investigation

The EC135 departed RW27 en-route back to his base near Bristol (left turn onto SSW). The AW109 was transiting to Cheltenham racecourse (SW to NE). Traffic Information was passed to the AW109 pilot on the EC135 and *vice versa*. It was clear that the cloud ceiling was quite low, instigating a query from the AW109 pilot on the weather at Gloucester, which was passed. The EC135 pilot obviously heard this and provided an airborne update (he was SW of Gloucester at the time). The Gloucester radar is approved for ATM use but not to provide radar services, although controllers are also permitted to use it if they believe a risk of collision exists. A review of the radar showed that, at the time of the exchange on the cloud-base, the AW109 was not visible but the EC135 was. Further updates to Traffic Information were passed by the ATCO to both pilots. The AW109 began to paint on the radar at about 5NM SW of Gloucester; the EC135 was approximately 4NM SW of Gloucester at the time. The ATCO passed further Traffic Information. At this point, there was about 1NM lateral separation between them and the EC135 pilot advised that he was taking TCAS action to avoid the traffic. He was then observed to make a left turn. Although nothing was reported on the RT, the ATCO completed an MOR which was then backed up by the EC135 pilot phoning later in the day to inform the ATCO he would be filing an Airprox.

It was noted that, at one point, the controller made a 'slip' with the callsign when passing Traffic Information to the EC135 (he used the AW109 callsign). However, it was still acknowledged by the EC135 pilot so was not thought to have had a bearing on the incident. The controller's phraseology when passing Traffic Information on something observed on radar was incorrect, the pilot should have been left in no doubt that he was not receiving a radar service. This being said, when debriefing, the ATCO was aware that he hadn't used the correct phraseology but he stated that he took into account the weather and deemed the aircraft to be in such a position that omitting it would be more beneficial to the pilot because he would have more time to look out of the window for the traffic.

MATS Pt2 reference

*2.4 Occasionally, ATCOs may consider a risk of collision exists when an aircraft is being provided with a Basic or Procedural Service, whether or not radar identity has been established. Whilst ATCOs may consider it appropriate to pass traffic information, it is essential that no doubt exists as to the type of service being provided. In such circumstances, pilots are to be advised that they are "not identified" or "not under a radar service" and that any information is "believed to be..." If a pilot requests avoidance advice, this should be taken as a request for a Deconfliction Service.*

### UKAB Secretariat

The EC135 and AW109 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.<sup>1</sup>

Both pilot were receiving a Basic Service from Gloucester ATC; CAP 493 states:

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<sup>1</sup> SERA.3205 Proximity.

**CAP 493 extract:**

*Within Class G Airspace, under a Basic Service, Pilots remain responsible for their own collision avoidance. The provider of Basic Service is not required to monitor the flight and pilots should not expect any form of traffic information from a controller. However, if a controller notices that a definite risk of collision exists, a warning shall be issued to the pilot. ((EU) 923/2012 SERA.9001 and SERA.9005(b)(2)).*

**Summary**

An Airprox was reported when an EC135 and an AW109 flew into proximity at 1100hrs on Sunday 17th November 2019. Both pilots were operating under VFR in VMC, both were in receipt of a Basic Service from Gloucester ATC.

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

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and reports from the air traffic controllers involved. 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.

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments. Although not all Board members were present for the entirety of the meeting and, as a result, the usual wide-ranging discussions involving all Board members were more limited, sufficient engagement was achieved to enable a formal assessment to be agreed along with the following associated comments.

The Board first discussed the actions of the pilots. The EC135 pilot had just departed from Gloucester, was encountering a low cloud-base and could hear, but not see, the AW109. When he received the warning from his TCAS, he became concerned that the AW109 was in close proximity (**CF3, CF4**), although in reality the lateral separation was in the region of 1.3NM. Members agreed that had the AW109 not been obscured by the low cloud, he probably would not have been so concerned by the incident (**CF5, CF6**). The AW109 was routing in the opposite direction and was also encountering a low cloud-base and could not see the EC135 (**CF5, CF6**). Members noted that without a CWS or a radar-based surveillance ATS, and if he was in and out of the low cloud, he may have been better served climbing above it and out of the way of the outbound EC135 on which he had received Traffic Information (**CF2**).

The Board then briefly discussed the actions of the controller and agreed that, with both pilots receiving a Basic Service, he was not required to monitor their flight (**CF1**). Nonetheless, he did provide Traffic Information to both pilots and the Board thought that there was little more he could have done.

In assessing the risk, members took into account the actual proximity of the encounter (rather than what might have been) and agreed that the lateral separation was such that there had been no risk of collision and normal safety standards had pertained; Risk Category E.

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

	2019317		
CF	Factor	Description	Amplification
	<b>Ground Elements</b>		
	• Situational Awareness and Action		

1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
<b>Flight Elements</b>			
<b>• Tactical Planning and Execution</b>			
2	Human Factors	• Insufficient Decision/Plan	Inadequate plan adaption
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>			
3	Human Factors	• Interpretation of Automation or Flight Deck Information	CWS sighting report
<b>• Electronic Warning System Operation and Compliance</b>			
4	Contextual	• ACAS/TCAS TA	TCAS TA / CWS indication
<b>• See and Avoid</b>			
5	Contextual	• Poor Visibility Encounter	One or both aircraft were obscured from the other
6	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: E.

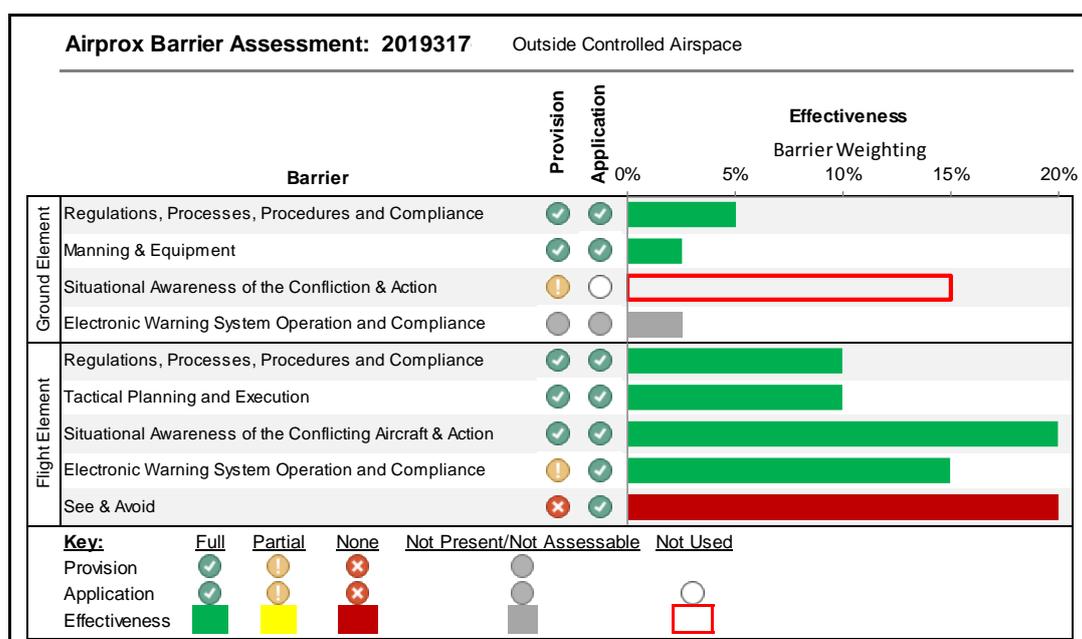
### Safety Barrier Assessment<sup>2</sup>

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 the AW109 pilot had received Traffic Information on the EC135 but elected to maintain his track and altitude.

**See and Avoid** were assessed as **ineffective** because due to cloud obscuration, neither pilot could see the other aircraft.



<sup>2</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).