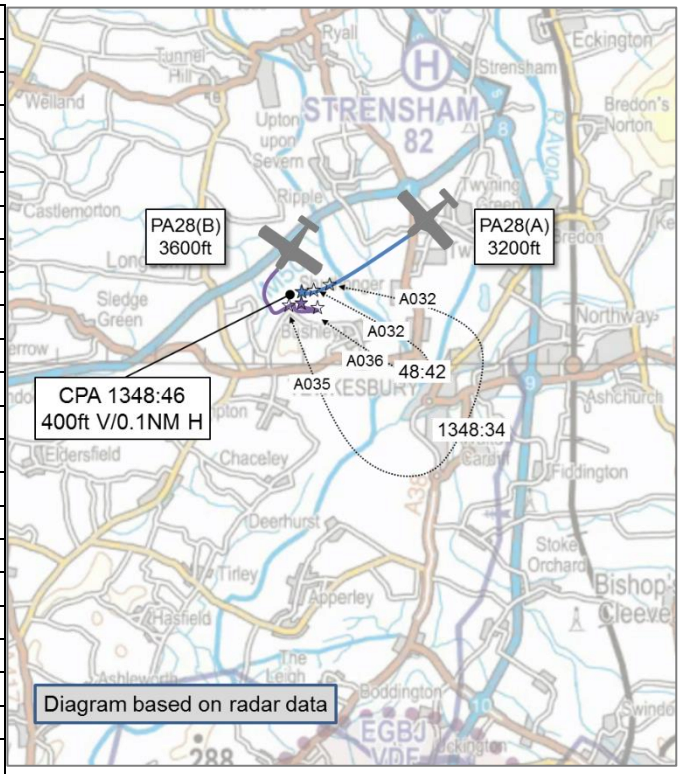
AIRPROX REPORT No 2019303

Date: 16 Oct 2019 Time: 1348Z Position: 5159N 00215W Location: 7NM NW Gloucester

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28(A)	PA28(B)
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider		Gloucester
Altitude/FL	3200ft	3600ft
Transponder	A, C	A, C
Reported		
Colours	Beige, Orange	Red, White
Lighting	Strobes, Nav	
Conditions	VMC	VMC
Visibility	>10km	
Altitude/FL	3000ft	NR
Altimeter	QNH (1003hPa)	NK
Heading	240°	NR
Speed	100kt	NR
ACAS/TAS	Not fitted	Unknown
Alert	N/A	Unknown
Separation		
Reported	100ft V/ 0.25- 0.5NM H	NR
Recorded	400ft V/0.1NM H	



THE PA28(A) PILOT reports that he was conducting a CPL navigation training flight and, when 8NM north of Gloucestershire Airport, he identified a conflicting aircraft ahead, conducting what appeared to be aerobatic manoeuvres involving repeated steep climbs, turns and descents. The student and instructor maintained a good lookout and, given what they initially deemed to be sufficient vertical and lateral separation, continued on track. The conflicting aircraft then turned towards them, so they altered course to the right, followed by a U-turn onto an easterly track. The aircraft passed above and to the right, after which they lost visual contact with it. They restarted the navigation leg east of the M5/M50 junction, but re-encountered the other aircraft in close proximity soon afterwards. They orbited left, trying to ascertain its flight path and intentions. The aircraft then levelled-out, slowed and seemed to head towards the Gloucester overhead. The aircraft was close enough for them to easily determine its markings, colour scheme and registration on the lower left wing. They were already receiving a Basic Service from Gloucester Approach and, shortly after the first potential Airprox, contacted them to ask if the other aircraft was on frequency. The ATCO confirmed that it was, but added 'they're not returning our calls'. Upon returning to base, the instructor rang Gloucester Approach to find out who the operator of the other aircraft was and, on contacting the company to advise of the Airprox, was told that the conflicting aircraft had been undertaking an 'air test'.

The pilot assessed the risk of collision as ‘High’.

THE PA28(B) PILOT reports that, although he had a casual conversation with the CFI a few days after the event, he had not been told it was reported as an Airprox until sometime later, so he couldn’t recall the incident. From his log book, he could see that he was conducting an instructional sortie on ‘stability’ which included short period pitch and roll stabilities. He couldn’t say whether he saw the other aircraft, but he was certain that he didn’t see anything the was close enough to worry him.

THE GLOUCESTER CONTROLLER reports that they were providing a Basic Service to PA28(A) pilot who was on a Navex. At 1354hrs the pilot called to ask whether they were providing a service to PA28(B), stating that it had come close to them. Although the controller was providing a Basic Service to PA28(B), the pilot did not appear to be listening out, because he was not answering calls. PA28(A) pilot later telephoned to inform the controller that he would be reporting an Airprox. The controller was unsure exactly where the Airprox took place.

Factual Background

The weather at Gloucestershire Airport was recorded as follows:

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METAR EGBJ 161320Z 27007KT 9999 SCT040 15/07 Q1003=
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Analysis and Investigation

CAA ATSI

The PA28(A) pilot was on a VFR Navex; the pilot was not in receipt of a Basic Service from Gloucester ATC at the time of the Airprox. The PA28(B) pilot was on a VFR local flight. The pilot was in receipt of a Basic Service from the Gloucester Approach controller. However, it was determined from the RT that the pilot was not answering all ATC calls.

The Gloucester controller was providing an Approach (non-radar) Service at the time of the Airprox and was dealing with other traffic in the lead-up to the event. Screenshots in this report have been taken from the Area Radar recordings.

At 1333:42, the PA28(B) pilot contacted the Approach controller and a Basic Service was agreed. The controller then called the pilot 5 times in the next minute but did not receive an answer.

At 1334:50, the pilot of an unrelated aircraft advised the controller that they were receiving the controller's calls without any problems; there was a simultaneous crossed transmission at this point, the content and source of which could not be determined. At 1336:00 the controller attempted to call PA28(B) pilot again, and again there was no response. The controller then turned their attention to other unrelated aircraft. The following screenshots illustrate how the Airprox unfolded:

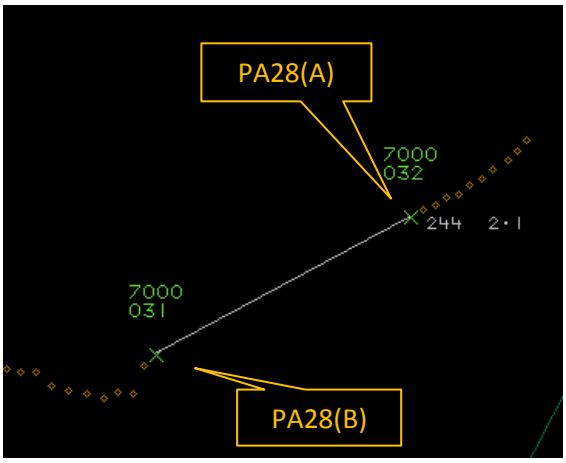


Figure 1 - 1347:21

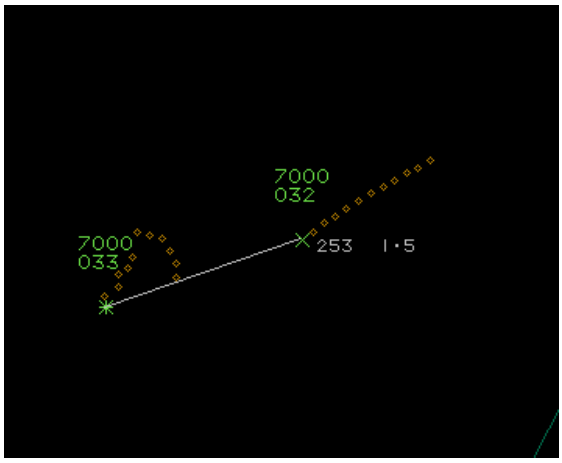


Figure 2 - 1348:07

At 1348:48 CPA occurred, with the aircraft separated by 0.1NM laterally and 400ft vertically (Figure 3).

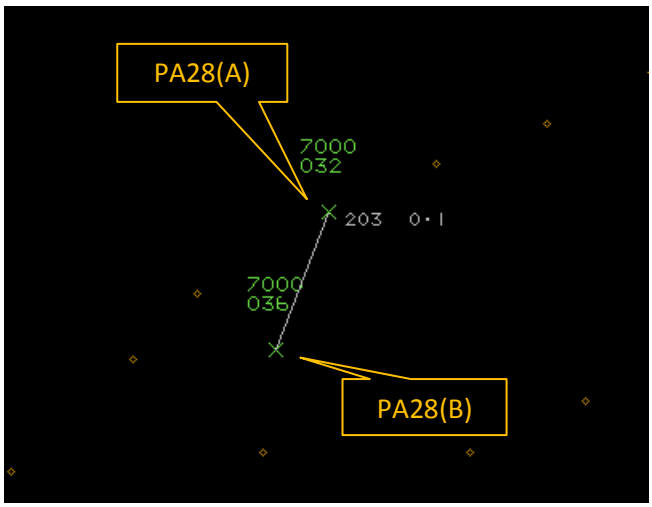


Figure 3 - 1348:48 CPA

At 1353:46, the PA28(A) pilot contacted the Gloucester Approach controller, advised them of their flight details and requested a Basic Service. During this RT exchange, the pilot asked the controller to confirm whether they had the pilot of PA28(B) on frequency. The controller responded in the affirmative but stated that the pilot had not responded to the controller's calls since the aircraft departed.

At 1357:25, the PA28(B) pilot subsequently called the controller advising that they were 8NM north of the Gloucester overhead and requested re-join via the overhead. The controller issued instructions for an overhead join, which was readback in full by the pilot.

The controller was providing Approach (non-radar) Services and, as a result, was not able to monitor the flight of PA28(B); the pilot was also not responding to RT calls from the controller. The PA28(A) pilot was not in receipt of a service from Gloucester Approach and was unknown traffic to the controller until after the Airprox had occurred.

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)).

UKAB Secretariat

The PA28(A) and PA28(B) 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]

Summary

An Airprox was reported when PA28(A) and PA28(B) flew into proximity approximately 8NM north of Gloucester at 1348hrs on Wednesday 16th October 2019. Both pilots were operating under VFR in VMC; PA28(B) was in receipt of a Basic Service from Gloucester Approach, PA28(A) was not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

[1] SERA.3205 Proximity.

reports from the appropriate ATC and 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.

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 looked at the actions of the PA28(A) pilot. He was conducting a CPL navigation exercise and members were aware that it was a requirement to remain as close as possible to the planned track and altitude. However, having seen PA28(B) manoeuvring in the area that he needed to fly through, and having turned away once, they wondered why he didn't change his altitude in order to remain clear (**CF2, CF7**). He was not receiving an ATS at the time, only calling Gloucester ATC after the Airprox, so had no prior situational awareness about PA28(B) and members considered that this was a missed opportunity (**CF4, CF5**). He was visual with the other aircraft as it turned back towards him and although there was 400ft separation, was concerned by its proximity (**CF6**).

Turning to the PA28(B) pilot, he was receiving an ATS from Gloucester, however, he wasn't acknowledging their calls and so had also missed out on the opportunity for receiving situational awareness from either ATC or from hearing other pilots in the vicinity (**CF3**, **CF5**). Furthermore, members noted that if he had told ATC that he was manoeuvring, they could have warned other pilots in the area, although it would not have affected the outcome of this incident given that the PA28(A) pilot was not on the same frequency. Some members wondered whether he had conducted sufficient look-out prior to each manoeuvre, in which case he should have seen PA28(A). However, he could not remember the event and members were unsure whether this was because he had seen the other PA28 and was not concerned, or he had not seen it at all. The Board expressed disappointment that, having discussed it with his CFI in the days following, he had not thought to at least make notes whilst it was fresh in his mind.

The Board briefly discussed the role of ATC, and noted that with PA28(A) pilot not on frequency, and PA28(B) pilot not acknowledging any calls, there was little more he could have done under the circumstances. Furthermore, he was not required to monitor the aircraft on radar under the terms of a Basic Service (**CF1**).

In assessing the risk, the Board noted that PA28(A) pilot had been visual with PA28(B), and whilst lateral separation had been less than ideal, with 400ft vertical separation they concluded that there had been no risk of collision. However, because of the unpredictable nature of PA28(B)'s profile they concluded that safety had been degraded; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2019303		
CF	**Factor**	**Description**	**Amplification**
	Ground Elements		
	• Situational Awareness and Action		
1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
	Flight Elements		
	• Tactical Planning and Execution		

2	Human Factors	• Action Performed Incorrectly	Incorrect or ineffective execution
3	Human Factors	• Accuracy of Communication	Ineffective communication of intentions
4	Human Factors	• Communications by Flight Crew with ANS	Pilot did not communicate with appropriate service provider
	• Situational Awareness of the Conflicting Aircraft and Action		
5	Contextual	• Situational Awareness and Sensory Events	Generic, late, no or incorrect Situational Awareness
	• See and Avoid		
6	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft
7	Human Factors	• Lack of Individual Risk Perception	Pilot flew close enough to cause the other pilot concern

Degree of Risk: C.

Safety Barrier Assessment[2]

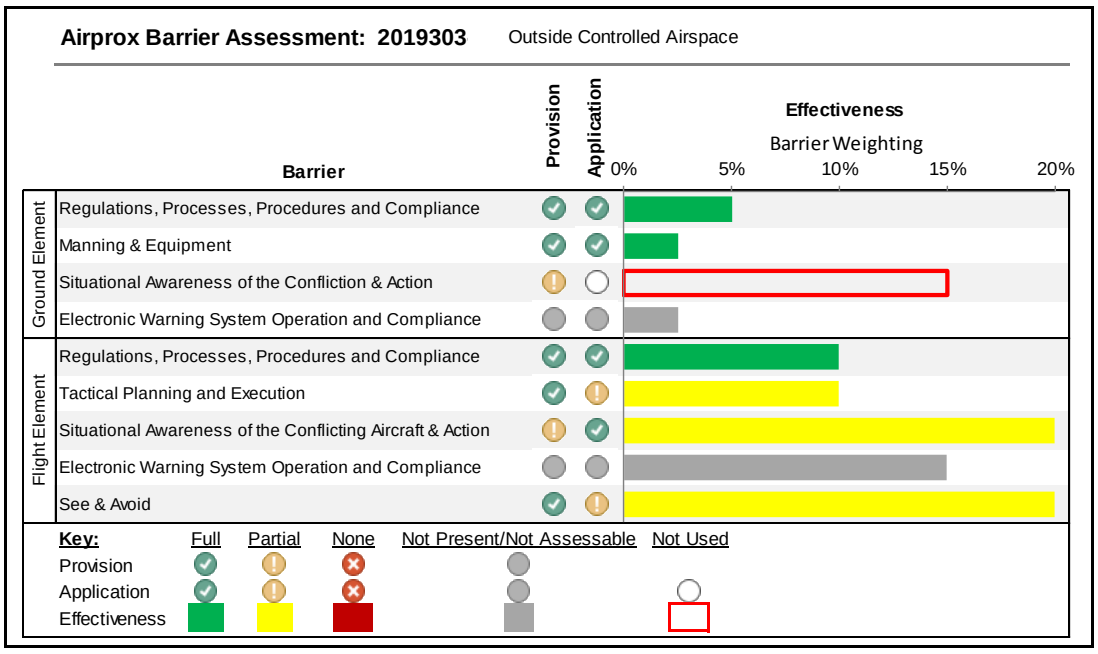
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the PA28(A) pilot could have adjusted his altitude to remain clear of the manoeuvring aircraft.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because neither pilot knew the intentions of the other.

See and Avoid were assessed as **partially effective** because, although there was 400ft between the 2 aircraft, the PA28(A) pilot could have increased the vertical separation.



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