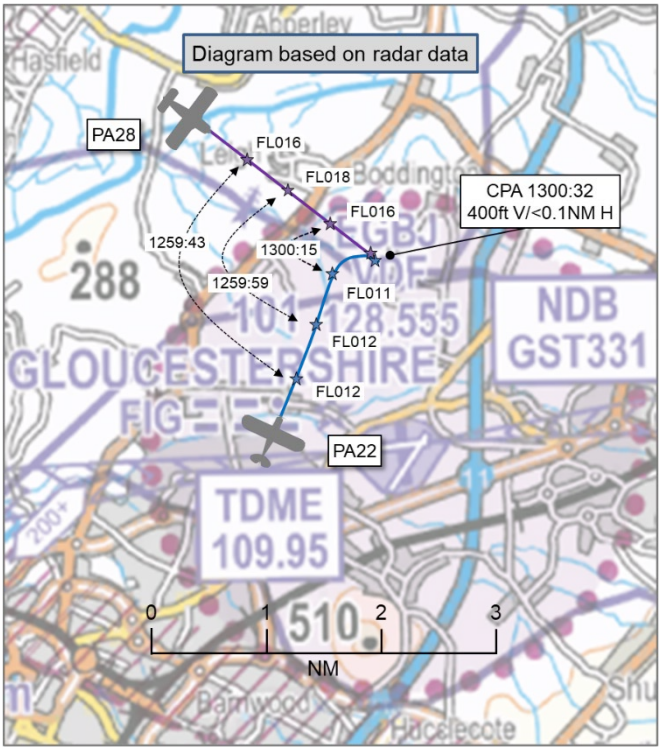
AIRPROX REPORT No 2026005

Date: 16 Jan 2026 Time: 1301Z Position: 5155N 00210W Location: Gloucester Airport

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA22	PA28
Operator	Civ FW	Civ FW
Airspace	Gloucester ATZ	Gloucester ATZ
Class	G	G
Rules	VFR	VFR
Service	ACS	ACS
Provider	Gloster Tower	Gloster Tower
Altitude/FL	FL010	FL014
Transponder	A, C, S	A, C, S
Reported		
Colours	Cream, red	White, red
Lighting	Bcn	Nav, Anti-col, Strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	800ft AGL	1200ft
Altimeter	QFE (1003hPa)	QNH (1005hPa)
Heading	130°	130°
Speed	85kt	90kt
ACAS/TAS	PilotAware+ADS-B out	Not fitted
Alert	None	N/A
	Separation at CPA	
Reported	175ft V/20m H	Not seen
Recorded	400ft V/<0.1NM H	



THE PA22 PILOT reports that, towards the end of their downwind, they were told to look out for a helicopter ([which they had] not sighted). Just prior to turning base, the PA28 [pilot] was cleared to join base #2 [to their PA22] but [opine that] this clearance is normally given to an aircraft that is 4-5NM out. At the point this clearance was given to [the PA28 pilot] they [the PA28] were already on a wide right base but at 1500ft due to being cleared into the ATZ with a height restriction of not below 1500ft (which is done at Gloucester for traffic separation) and so [the two aircraft] were each in each other's blind spots. The PA22 pilot reports that they could have seen them at mid-downwind but were focussed at circuit height looking for the helicopter and ground features, and [the PA28] was 500ft above and was then in their blind spot from late downwind. [The PA22 pilot opines that] they would have been in the PA28 pilot's blind spot at all times, as that pilot sits on the left side of their cockpit so it is not possible to see what is down and to the right. Immediately after, [the PA28 pilot] was given the RT call to join #2 to [the PA22] as they had turned right base. The PA22 student then commented that they were 200ft low (they had been at 800ft as they had rolled wings level on base) and the PA22 instructor had been in the middle of telling the student that was not necessarily a bad thing as they had needed to descend on base anyway when they then saw the PA28 pass overhead and descend to their level immediately in front of them. It [had] felt like they were 100ft above them but, looking at transponder data afterwards, it had been more like 175ft/200ft. The PA22 pilot reports that they could not get a word in on the radio for over a minute, so just kept the PA28 visual on the nose until the Tower controller told [the PA28 pilot] to go around in a left orbit and cleared [the PA22] to land. […]. The PA22 pilot opines that the practice of clearing aeroplanes to enter the ATZ at 1500ft contributed to this incident as it means that, if the higher aircraft is a low-wing and the lower aircraft a high-wing, it puts the aircraft in each other's blind spots and forces the [pilot of the] higher aircraft to descend onto traffic they cannot see. Had the PA22 been at 1000ft, not 800ft, as they had completed the downwind to base turn, it would not have increased the chances of seeing each other (both pilots would still have been in each other's blind spots and the PA28 would have still needed to descend to get onto right base) – the PA22 would have been at the same level with zero vertical separation, so being low had potentially prevented a collision! Had

the PA28 entered the ATZ without a height restriction, the aircraft would have been same-level and not in each other's blind spots, allowing visual contact to avert a collision. The PA22 pilot also believes that the extremely busy RT chatter on Tower frequency (the traffic was not heavy, the RT was) was a contributing factor. It had meant that the PA28 pilot was not able to get a word in with Tower after handover from Approach (normally at 5 miles) until they had been ON right base. So, they had been only told to watch out for [the PA22] 50sec before over-flying it, and when it would already have been in their blind spot.

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

THE PA28 PILOT reports that they had departed […] to […] at 10am on their QXC (Qualifying Cross Country) for their PPL. Conditions were good. After landing at […] the weather had changed and they had decided their next leg to […] was not safe [to conduct under] VFR as the cloud ceiling was 600ft. They had then booked themself in to […] which they had then made their way to. After that, they had booked back in to Gloucester for [arrival at] 1315. They had flown past Worcester to keep VFR as the clouds were low and, towards Tewksbury, they noted ATIS and made their call to request join. Gloucester had then given them RW22, not below 1500ft, QFE 1005hPa, squawk 4531 and report 5NM. The PA28 pilot had then reported at 5NM and switched to Tower frequency. The radio was immediately congested but the PA28 pilot managed to make contact after approximately 2min and was told to join right-base for RW22. They had been number 2 and visual with what they thought was [the] landing aircraft. They could hear there were helicopters in the circuit and 2 [fixed-wing] aircraft, one was heading from Ledbury joining downwind and one was downwind and a few on the ground. The PA28 pilot had got to base and could not then make contact with Tower and went past their final turn. They decided to turn left out of the circuit and then managed to speak to Tower to say what had happened. The Tower controller told them to loop round and join back on right-base for RW22 which they did and to call final, which they did and landed. […]. The PA28 pilot had not been aware of any near miss until after they had got back to […] and had a phone call from the head of ATC.

THE GLOSTER TOWER CONTROLLER reports that they had been operating as Tower controller between 1200 and 1308 (Gloster Tower 122.905MHz). RW22 right-hand circuits were in use for fixed-wing and helicopter traffic. The ATM was unserviceable. They had been on the "R" shift (0930-1900). A helicopter was inbound from the northwest to Heli-North, conducting an autorotation from 1000ft as coordinated with Approach. Fixed-wing right-hand circuits were active with the PA22 (2 POB). Both aircraft pilots were advised of each other due to potential conflict, and the PA22 positioned behind the helicopter. The helicopter pilot was approved to cross RW27 as required to land into wind at Heli southwest and was subsequently approved to conduct heli-circuits based on RW22 right-hand, including authority to cross RW27. The PA28 (1 POB) joined right-base RW22 at not below 1500ft. The controller reports that they were not visual with that aircraft. The PA28 was [operated by] a solo student inbound from […], having previously departed to […]. As the PA28 pilot was not visual and conflicted with the PA22 on downwind, the pilot was instructed to report right-base and maintain the height restriction [they believe]. The PA28 was planned as number 2 to the PA22. The PA22 was believed to have been instructed to report final as number 1. [An uninvolved aircraft] was holding ready for departure RW22. The flight progress strip indicated a westbound departure. The controller reports that they cleared the uninvolved aircraft pilot for take-off to the west, after which they advised an intention to route northeast. The controller asked if a left turn on track to the northeast could be accepted to deconflict with right-hand circuit traffic and the right-base joiner. The pilot agreed and was instructed to "left turn on track northeast," which was complied with. Shortly thereafter, the PA28 pilot reported that they had overshot right-base. At this time, the controller experienced uncertainty regarding the relative positions of the PA28 and the PA22. The controller requested the PA28 pilot to report their position, they confirmed they had overshot right-base. Based on visual observation, the controller identified the PA22 established on final and the PA28 to the right of the PA22, tracking in the opposite direction to a left-base leg. The controller cleared the PA22 pilot for a touch-and-go. The PA22 pilot read back the clearance and stated words to the effect of "*the student would be debriefed regarding the Airprox on return to base"*. The PA28 pilot was instructed to turn left and report left downwind RW22. They were reminded that they had previously been instructed to maintain height and report right-base. As the PA28 continued tracking opposite to the left-base leg, a further instruction was issued to turn left and position on left-base. Due to continued non-visual status, the controller later requested the PA28 pilot to report

their position. They reported overhead Bishops Cleeve, which the controller assessed to be approximately 3NM northeast of Gloucester Airport. The PA28 pilot was instructed to report 2NM final RW22. This was complied with, and the aircraft landed without further incident. The outbound flight progress strip for the PA28 indicated “QXC” and was highlighted as “Student.” The inbound strip did not indicate student status (no S highlighted or student/QXC written in remarks). Student solo status was assumed after the Airprox had occurred based on the outbound strip and comments made by the PA22 pilot on frequency.

Factual Background

The weather at Gloucester Airport was recorded as follows:

```
METAR EGBJ 161250Z 17010KT 9999 FEW012CB 09/06 Q1005=
```

Analysis and Investigation

Gloucester Safety Investigation

Using the flight progress strips in use around the time of the event, RT recordings and ATCO reports, the Tower ATCO traffic levels can be described as medium according to the Unit Training Plan definitions (Medium: More than five aircraft not requiring excessive special handling/co-ordination).

Having said that, the RT loading leading up to the Airprox event was almost consistently busy with very few gaps. All aircraft being controlled by the Tower ATCO in the build up to the Airprox did appear on the Airport Traffic Spreadsheet for the day. Some of them were a little outside their booked slot, but it is not considered that this played a significant part in the Airprox.

[PA28 C/S] did not identify themself as a student during any inbound transmission. They had departed Gloster earlier in the day and identified themself as a student at that time. Failure for the ATCOs involved to know that they were a student meant they may not have afforded them extra attention or consideration. This may not have prevented the Airprox but is worth considering as a possible “minor” root cause.

Gloster MATS 2, Section 3 (Aerodrome Control), Chapter 2 (Aerodrome operations), Para 2 (Circuit Procedures) states:

> 2.2. Circuit Joining
>
> 2.2.1. Aircraft may be permitted to join at any point in the circuit. ADC may elect to place a height restriction on joining traffic, normally ‘not below 1500ft QFE’, until such time as required in order to minimise conflictions in the circuit. However, ATCOs are reminded of the overriding need for pilots of VFR flights to remain in VMC. To that end, height restrictions should only be imposed on VFR flights when absolutely necessary to maintain safety. All restrictions should be lifted as soon as possible.

At time 1254:06, Gloster Approach issued [PA28 C/S] a right-base join not below height 1500ft. It is normal practice at Gloster for ADC requests for joins to be not below height 1500ft to be issued by APP on their behalf.

When [PA28 C/S] first contacted the Tower at 1259:45 it is believed (based on discussions with the pilot and recordings from unapproved 3rd party ADS-B software) that they were still not below height 1500ft. Tower then told them to report established right-base and they started to descend. The Tower ATCO believed that they had reiterated the previous clearance (from Approach) not to descend below 1500ft, but they had not.

It is reasonable to say that the instruction for an aircraft to join the circuit not below height 1500ft when the notified circuit height is 1000ft could lead to confusion. Some pilots may take the request to "report right-base" as a cancellation of the height restriction and it seems that, on this occasion, the pilot of [PA28 C/S] thought they could descend. [The student pilot of] [PA28 C/S] was told that

they were number two and given the position of number one as late downwind. At interview, the pilot stated that they did not assimilate the information that the ATCO had passed regarding the position of number one (the PA22 late downwind) and was convinced that they were number two to traffic on final for RW22. The pilot also reported that they believed they were visual with an aircraft on final but the last aircraft to have been on final for RW22 was [PA22 C/S]) on their previous touch-and-go.

When [PA22 C/S] was on final for the previous circuit, [PA28 C/S] would probably have been too far away to be visual with them so the belief held by the pilot of [PA28 C/S] that they were number two to an aircraft on final cannot be explained. It is likely that the pilot of [PA28 C/S] had been trying to interject on Tower frequency for over 90sec and so would have been more than 2NM closer than routinely expected for their first call to Tower following transfer of communication from Approach. This meant that they were much closer to right-base and other circuit traffic [PA22 C/S], meaning there was less opportunity for the ATCO and each aircraft pilot to visually acquire the aircraft concerned. It should be noted that the pilot of [PA22 C/S] was not passed Traffic Information on the inbound [PA28 C/S] and that this was most likely due to the fact that [PA28 C/S] was closer to right-base than the Tower ATCO had expected and that they believed the instruction to report final number two to [PA22 C/S] was sufficient.

It should also be noted that the height restriction of not below height 1500ft on this occasion could be counter-productive to allowing the pilots [to gain] visual acquisition of each other, as [PA22 C/S] (in the circuit at 1000ft) was high-wing and [PA28 C/S] (joining not below 1500ft) was low-wing.

The instructor pilot of [PA22 C/S] reported that minimum vertical separation was 175ft and minimum horizontal separation was 20m. They assessed the risk of collision as medium. The instructor pilot of [PA22 C/S] reported that their circuit was being flown, in error, at 800ft (the notified circuit height is 1000ft). This error may have stopped the nearest point of conflict from being closer than it ended up being.

As the pilot of [PA28 C/S] never saw [PA22 C/S] it is not possible for the student pilot of [PA28 C/S] to assess what the risk of collision had been or how close they might have been.

Events Timeline

The Aerodrome Traffic Monitor was out of service at the time of the Airprox. The ATM may have provided the ADC ATCO with sufficient information to realise that [PA28 C/S] was closer to right-base and [PA22 C/S] than they had thought, and allowed them to change their plan (although this may not have been sufficient as another root cause had been their mistaken belief that they reiterated the “not below height 1500ft” restriction to [PA28 C/S]). It should be noted that, even when serviceable, the Gloster ATM was, on occasion, relatively difficult to discern as it was primary only and a great deal of clutter was not unusual.

The instructor pilot of [PA22 C/S] commented that there had been a lot of unnecessary chatter on the Tower frequency. The investigator is satisfied that, in the minutes leading to the Airprox, the RT transmissions made by all parties were operationally required and of a reasonable nature.

Root causes:

1. Student pilot did not assimilate that number one was right-hand downwind but was under the incorrect belief that they were looking for number one on final for RW22.
2. ATCO believed they had reiterated the not below height of 1500ft instruction when they hadn't.
3. The relatively long time it took for the pilot of [PA28 C/S] to report on Tower frequency (due to RT loading) and subsequent proximity to right-base and [PA22 C/S].
4. The ATCO did not pass Traffic Information to the pilot of [PA22 C/S] on [PA28 C/S] as they would have believed [PA28 C/S] was further away from right base than they had been in reality.
5. RT loading.

6. No formal policy for what to do in the eventuality that a pilot report cannot be made on frequency in a timely manner.
7. Low-wing versus high-wing ergonomics leading to difficulty in seeing each other due to the not below 1500ft height restriction versus 1000ft circuit height.
8. Student pilot did not identify themselves as such.
9. ATM was unserviceable.

Timeline:

1251:55 [PA22 C/S] *just south of Tewkesbury requesting rejoin for circuits.*
1252:00 APPROACH [PA22 C/S] *join direct right-base RW22 QFE 1003 report 5 miles*.
1252:07 [PA22 C/S] *Join direct right-base RW22 1003 and wilco* [PA22 C/S].
1252:32 [PA22 C/S] [PA22 C/S] *is 5 miles to run.*
1252:36 APPROACH [PA22 C/S] *roger contact Tower 122.905*.
1252:41 [PA22 C/S] *To Tower 122.905* [PA22 C/S].
Other [uninvolved] transmissions
1253:40 [PA28 C/S] *Gloster Approach* [PA28 C/S] *just north of Tewkesbury (??) miles to the field, information Papa, QNH or…QFE 1003, request joining instructions* [PA28 C/S].

PA28 pilot did not identify themself as a student at any point.

1253:55 APPROACH [PA28 C/S], *Gloster Tower (sic) QFE correct, Basic Service, squawk 4531.*
1254:02 [PA28 C/S] *Basic Service squawk 4531* [PA28 C/S].
1254:06 APPROACH [PA28 C/S] *join direct right-base RW22 not below height 1500ft report 5 miles.*
1254:15 [PA28 C/S] *Not below 1500ft RW22 report 5 miles and right-hand circuits* [PA28 C/S].
1254:23 APPROACH [PA28 C/S] *affirm and just confirm it's to join direct right-base RW22 not below height 1500ft.*
1254:30 [PA28 C/S] *Join direct right-base not below 1500ft report 5 miles* [PA28 C/S].

[uninvolved aircraft pilot] requests auto rotation to remain west of RW22 on arrival (1000ft). They were told to route to overhead and report 3 northwest.
[uninvolved aircraft pilot] reported Ledbury inbound.
[uninvolved aircraft pilot] reported 3 miles and is transferred to Tower.
[uninvolved aircraft pilot] reported inbound 10 northwest for Heli North.

1257:45 [PA28 C/S] [PA28 C/S] *5 miles*.
1257:48 APPROACH [PA28 C/S] *roger traffic presently 3 miles northwest of the field approaching the overhead at 1000ft is an Agusta 109, fixed wing circuit is active, contact Tower 122.905.*
1257:58 [PA28 C/S] *Looking out for traffic contact Tower on 122.905* [PA28 C/S].

The following are exchanges on Gloster Tower frequency 122.905MHz

1253:00 [PA22 C/S] *Gloster Tower* [PA22 C/S] *with you again showing 4 and a half miles to run to the right base for RW22*.
1253:06 TOWER [PA22 C/S] *Gloster Tower continue, correction report, er, established right-base RW22, you're number 3, number 2 is a Cub on tight right-base*.
1253:12 [PA22 C/S] *Wilco and looking for traffic* [PA22 C/S].
Other transmissions
1255:12 [PA22 C/S] [PA22 C/S] *we're just coming up on right-base now* [PA22 C/S].
1255:16 TOWER [PA22 C/S] *report final number one*.
1255:20 [PA22 C/S] *Wilco* [PA22 C/S].
Other [uninvolved] transmissions
1256:40 TOWER [PA22 C/S] *RW22 cleared touch-and-go into the right-hand circuit wind 160 degrees 8 knots.*
1256:48 [PA22 C/S] *Cleared touch-and-go right-hand* [PA22 C/S].

No transmissions on Tower frequency from 1256:50 to 1257:40 but this was prior to [PA28 C/S] being transferred from APP to TOWER. [PA28 C/S] was transferred to Tower frequency at 1257:58 and the following demonstrates the RT levels that made it difficult for [PA28 C/S] to call on the Tower frequency.

1257:40 [uninvolved aircraft C/S] *ready for departure*.
1257:43 TOWER [uninvolved aircraft C/S] *hold at Echo 1*.
1257:46 [uninvolved aircraft C/S] *Hold at Echo 1* [uninvolved aircraft C/S].
1257:50 TOWER [PA22 C/S] *traffic joining inbound from the northwest for Heli North currently at 1000ft altitude is an Augusta 109*.
1257:57 [PA22 C/S] [PA22 C/S].
1257:58 [uninvolved C/S] *And Tower this is* [uninvolved C/S].
1258:04 TOWER [uninvolved C/S] *Gloster Tower traffic upwind RW22 in the fixed circuit is a PA22 climbing to altitude 1100ft, Heli North cleared to land wind 160/07 knots.*
1258:20 [uninvolved C/S] *Cleared to land Heli North looking for traffic helicopter* [uninvolved C/S].
1258:26 TOWER [uninvolved C/S] *auto rotation to Heli North is approved*.
1258:30 [uninvolved C/S] [uninvolved C/S].
1258:31 TOWER [uninvolved C/S] *on a right turn on track to the west RW22 cleared for take-off wind 160/8 knots, fixed wing circuit active.*
1258:40 [uninvolved C/S] *Cleared for take-off* [uninvolved C/S]*… just confirm we're going northeast*.
1258:45 TOWER *Roger, I've got you for west, uh, standby.* [uninvolved C/S] *can you accept a left turn northeast to keep you out of the way of conflicting traffic?*
1258:55 [uninvolved C/S] *Affirm* [uninvolved C/S].
1258:57 TOWER [uninvolved C/S] *after noise abatement left turn on track to the northeast RW22 cleared for take-off 160/08*.
1259:05 [uninvolved C/S] *After noise abatement left turn out cleared take off* [uninvolved C/S].
1259:21 TOWER [PA22 C/S] *previously reported Augusta 109 believed to be on your right-hand side, 2 o'clock.*
1259:26 [PA22 C/S] *Yeah looking* [PA22 C/S].
1259:29 TOWER *They're descending now so no factor*.
1259:32 [uninvolved C/S] *And er* [uninvolved C/S] *we will be crossing 27 remaining west of 22*.
1259:36 TOWER [uninvolved C/S] *roger cross RW27 as required*.
1259:42 [uninvolved C/S] *Cross RW27 as required* [uninvolved C/S].
1259:45 [PA28 C/S] *Gloster Tower* [PA28 C/S] *about to join right base.*
It is likely that [PA28 C/S] had been trying to interject on Tower frequency for over 90sec and so would have been more than 2NM closer than expected for first call to Tower.
1259:48 TOWER [PA28 C/S] *Gloster Tower report established right-base RW22, you're currently number 2, number 1 is a PA22 late downwind right-hand*.
1259:59 [PA28 C/S] *Report join right-base and number 2* [PA28 C/S].
Pilot of [PA28 C/S] stated that they did not hear the downwind element of the Traffic Information passed and was convinced number one was on final for RW 22.
13:00:05 [uninvolved C/S] *Gloster Tower* [uninvolved C/S]*, 3 POB, requesting start* […] *for a VFR departure out to the south.*
1300:15 TOWER [uninvolved C/S] *report tracking northeast*.
1300:18 [uninvolved C/S] *Wilco*.
1300:20 TOWER [uninvolved C/S] *Gloster Tower sorry about that QNH 1005 squawk 4531 start up approved.*
1300:27 [uninvolved C/S] *1005 4531 start.*
1300:32 [uninvolved C/S] *request taxi via November Two.*

CPA at 1300:32

1300:36 TOWER [uninvolved C/S] *via N2 taxi holding point Echo One cross RW27*.
1300:45 2 stations broadcasting at same time believed to be [2 x uninvolved C/S].
1300:51 TOWER *Two stations at once, break break,* [uninvolved C/S] *you were stepped on there, cross RW27 taxi holding point Echo One*.

1301:01 [uninvolved C/S] *via November Two cross RW27 taxi holding point Echo One* [uninvolved C/S].
1301:07 TOWER [uninvolved C/S] *Gloster Tower Heli North cleared to land wind 170 degrees niner knots.*
1301:14 [uninvolved C/S] *Clear land Heli North* [uninvolved C/S].
1301:17 [uninvolved C/S] *request circuit right 22.*
1301:21 [PA28 C/S] *Er right base* [PA28 C/S].
1301:25 TOWER [PA28 C/S] *say again*.
1301:28 [PA28 C/S] *I'm now turning final, would you like me to go somewhere else now?*
1301:34 TOWER [PA28 C/S] *er which one is your position now?*
1301:41 [PA28 C/S] *I've now overshot the right base and the final.*
1301:44 TOWER [PA28 C/S] *you were instructed to report right base so do a left turn to track left downwind RW22.*
1301:51 [PA28 C/S] *Sorry I couldn't get in on the radio* [PA28 C/S].
1301:54 TOWER *Roger, you've descended also which you were told to maintain.*
The Tower controller believed they had reiterated the height restriction (not below height 1500ft) but had not.
1301:59 [PA28 C/S] *Apologies* [PA28 C/S].

CAA ATSI

The PA28 pilot arrived approximately 15min early for their 1315 slot, and it would appear from the height restriction applied by Approach Control that they could not be immediately accommodated into the visual circuit. When this situation arises in the future, the unit may wish to consider holding the aircraft away from the circuit pattern until the aircraft can be accommodated.

The PA28 [pilot] was cleared by Approach Control to 'join' direct right base, at not below 1500ft and advised that the circuit was active. During the reporting process, neither the Tower nor the Approach controller could remember the exact details of the communication/coordination that took place for the PA28 arrival. The Approach controller remembered issuing the PA28 pilot with a right base join not below 1500ft and advising the Tower controller of this. The Tower controller remembered that the Approach controller had advised them of the height restriction for the PA28 but could not remember the full specifics of the coordination/communication that took place. Issuing an instruction to 'join' the circuit on right base at a height which is above the circuit height appears to be a contradiction. Whilst perhaps not directly contributory to the Airprox, the unit may wish to consider using alternative wording to clearly distinguish the difference between routeing toward a particular position, at a height that is outside the circuit, and joining the circuit via a particular position, at the circuit height.

Congested RT on the Tower frequency resulted in the PA28 having travelled approximately 3NM after being instructed to transfer to Tower, with their initial call to the Tower being, "about to join right base." This resulted in the PA28 pilot receiving very late Traffic Information on the PA22 and not gaining visual contact with it at any point, with the PA22 pilot not receiving any Traffic Information on the PA28 and only becoming aware of its presence just before it passed above them. When the PA28 pilot was subsequently instructed by the Tower controller to report 'established' on right base, they were not instructed to maintain a height of not below 1500ft. The instruction to report established on right base appears to have been issued without the controller having established the position of the PA28 and not having had the aircraft in sight. ATSI feels that it was a reasonable assumption by the PA28 pilot that to 'establish' on right base required them to descend to circuit height. Continued RT congestion on the TWR frequency subsequently resulted in the PA28 pilot overshooting right base and final before they could make their second call to Tower.

The clearance issued by Approach Control for the PA28 pilot to join direct to the right base position of the visual circuit, with a height restriction in place, coupled with the Tower controller subsequently instructing the pilot to establish on right base without restating the height restriction and while being unaware of the position of the aircraft, does not appear to have best supported the Tower controller

in meeting their responsibilities in the delivery of an Aerodrome Control Service as defined in CAP 493 Section 2 Chapter 1 Paragraph 2.1:

> Aerodrome control shall issue information and instructions to aircraft under its control to achieve a safe, orderly and expeditious flow of air traffic with the objective of: preventing collisions between aircraft flying in, and in the vicinity of, the ATZ.

Unit management has reported that they are on the cusp of introducing a FID (based on ADS-B out) and are hoping to review the not below 1500ft joining clearance following the FID introduction. This should make the task of circuit integration more straightforward for the Tower controller with regard to traffic being displayed on the FID.

In the meantime, ATSI would encourage unit management to review the unit risk assessment for visual circuit operations, with a view to exploring further mitigations on the impact of the circumstances encountered during this Airprox event i.e., early arrival of an aircraft that cannot immediately be accommodated in the visual circuit, unclear controller coordination agreement between Approach and Tower, a congested Tower frequency resulting in late RT calls/position reports, the impact of an inadvertent omission of the 1500ft height restriction from the clearance issued to the PA28 pilot, high-wing v low-wing aircraft sighting challenges, and the additional challenge faced by pilots in receipt of a direct right base joining clearance with this height restriction in place, in achieving a stable approach, while attempting to lose this additional height in the short distance between right base and landing on the runway, as was the Tower controller's plan for the PA28, albeit they hadn't realised that the PA28 was so close to the right base position.

UKAB Secretariat

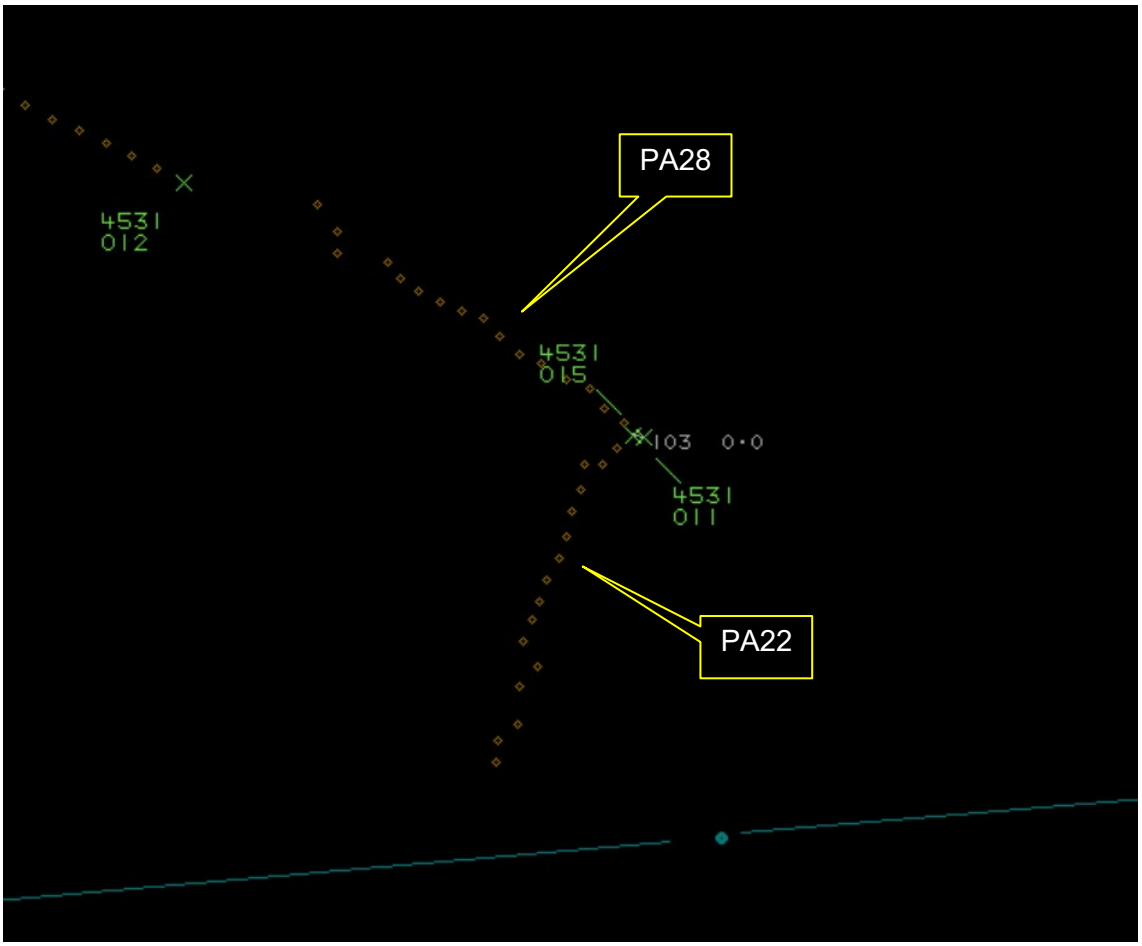


Figure 1: CPA (1330:32) 400ft V/ <0.1NM H

Both aircraft were tracked by radar and identified through Mode S data.

The PA22 and PA28 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]

Summary

An Airprox was reported when a PA22 and a PA28 flew into proximity at Gloucester Airport at 1301Z on Friday 16th January 2026. Both pilots were operating under VFR in VMC in receipt of an Aerodrome Control Service from Gloster Tower.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track 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 firstly discussed the actions of the PA22 pilot, noting that they had been instructing a student and had rightly been focussed on that task whilst endeavouring to maintain their air picture on other traffic within and joining the circuit. Members recognised that the significant loading on the RT and variable nature of the local weather had meant that they had gained only inaccurate situational awareness of the proximity of the PA28 (**CF9**); this had not been aided by a lack of warning from their electronic conspicuity (EC) equipment which, the Board agreed, should have alerted them to its presence (**CF11**). The respective 'high-wing' and 'low-wing' configurations between the 2 aircraft and the geometry at CPA had meant that the PA28 had effectively been obscured from the PA22 pilot's view and members agreed that they had not seen it until it had passed overhead (**CF12**, **CF13**).

Moving to the actions of the PA28 pilot, members noted that the flight was as a solo student, in what had become marginal weather conditions and had led to changes in their plan for the day. Although the pilot's status as a student had previously been noted by Gloster air traffic controllers, members felt that the PA28 pilot could have re-stated that fact as they had returned to the airfield (**CF7**) which could potentially have led to greater awareness for all involved. At their point of joining at Gloster, the PA28 pilot had received a 'not below 1500ft' instruction followed by a clearance to join at right base, but this had not been reinforced with an instruction to maintain that earlier 1500ft restriction. As the RT had been busy, the PA28 pilot had gained only generic situational awareness of the proximity of the PA22 (**CF9**) and had misidentified other traffic within the circuit as that PA22. The Board concluded that they had not assimilated the potential conflict with that PA22 (**CF10**) and had therefore not successfully conformed with the pattern of traffic formed by that aircraft (**CF8**). The same wing configuration and weather factors experienced by the PA22 pilot, combined with a height differential, had led to the PA22 being obscured from the PA28 pilot's sight (**CF13**) and had resulted in a non-sighting of the PA22 in this case (**CF12**).

In considering the contribution by the Gloster controller, members noted that the event had occurred at a period of moderate traffic and changing weather conditions. They noted that the PA22 pilot had not re-stated their student status on their initial call, and that such a reminder may have helped the controller in their understanding and decision-making. Members felt that it may have been prudent to have instructed the PA28 pilot to hold outside the circuit (**CF1**) and this may have negated the need for that pilot to have initiated a late left-hand orbit to generate space and thinking time as they had approached the base leg. The Board agreed that the RT had been busy (**CF4**) and that this had disrupted the controller's situational awareness (**CF5**), leading to them believing that the PA28 had been further out from the field than had actually been the case (**CF3**) and subsequently contributing to them not having detected the conflict between it and the PA22 (**CF2**) as they had cleared the PA28 pilot to right base without re-stating the need to maintain 1500ft (**CF6**). The Board wished to note that, in circumstances

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

such as those seen in this event, changes to 'normal procedures' should be predicated on a fail-safe outcome whenever possible.

The Board, in assessing a Risk category for this event, noted that the student pilot had joined the circuit without re-stating their student status. This, combined with a full circuit, poor weather and busy RT, had led to a lack of accurate situational awareness for all involved. The Board felt that it had been fortunate that the PA28 pilot had descended 200ft below circuit height at CPA, and that this had likely led to the event being an Airprox and no more. The Board agreed that safety had not been assured (**CF14**) and, as such, assigned Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	Ground Elements			
	• Situational Awareness and Action			
1	Human Factors	• ATM Coordination	Coordination related issues (external as well as internal)	
2	Human Factors	• Conflict Detection - Not Detected	An event involving Air Navigation Services conflict not being detected.	
3	Human Factors	• Expectation/ Assumption	Events involving an individual or a crew/ team acting on the basis of expectation or assumptions of a situation that is different from the reality	
4	Contextual	• Frequency Congestion	An event involving frequency congestion that reduces the effectiveness of communications	
5	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
6	Human Factors	• Traffic Management Information Provision	An event involving traffic management information provision	The ANS instructions contributed to the Airprox
	Flight Elements			
	• Tactical Planning and Execution			
7	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
8	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			
9	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
10	Human Factors	• Understanding/ Comprehension	Events involving flight crew that did not understand or comprehend a situation or instruction	Pilot did not assimilate conflict information
	• Electronic Warning System Operation and Compliance			
11	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
	• See and Avoid			
12	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots
13	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
	• Outcome Events			
14	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: C.

Safety Barrier Assessment[3]

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 Gloster Tower controller had inaccurate situational awareness of the position and altitude of the PA28.

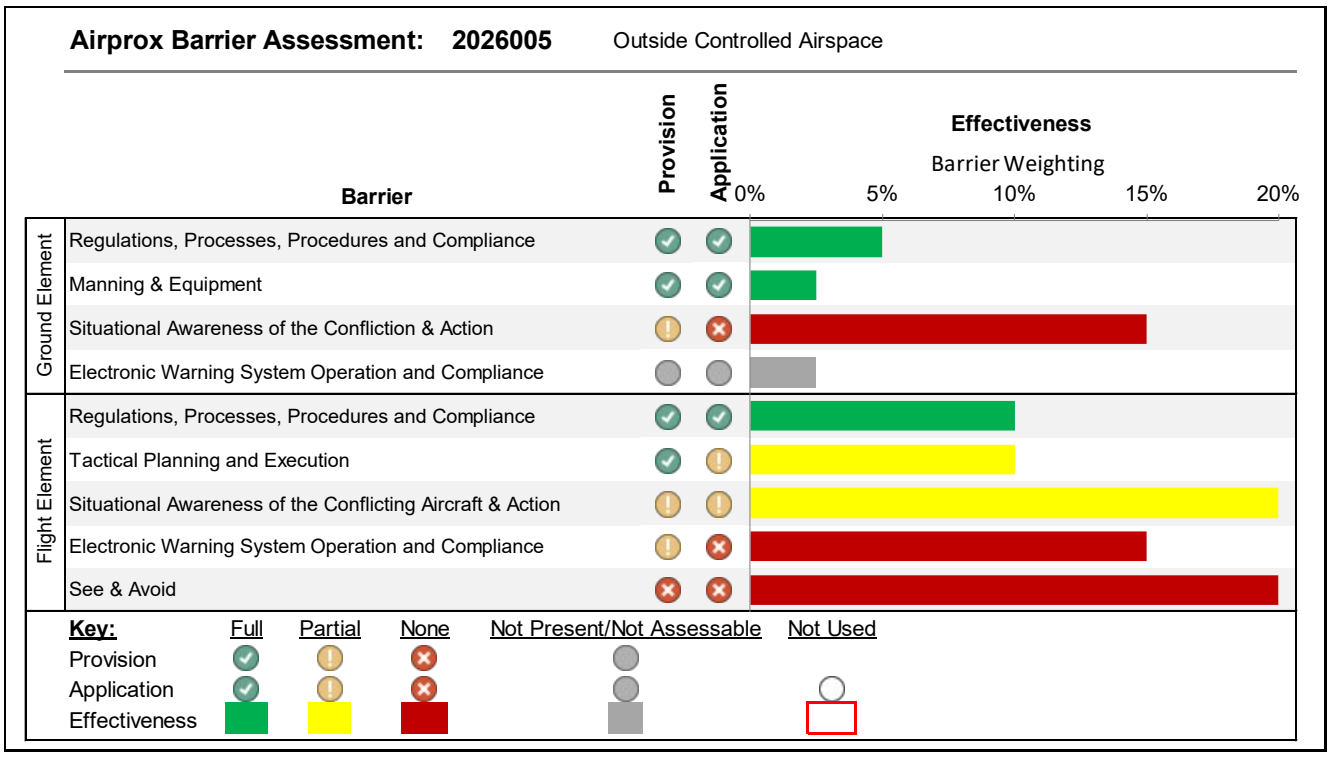
Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the PA28 pilot could have re-stated their student pilot status and did not conform with the pattern of traffic as formed by the PA22.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because both pilots had inaccurate situational awareness of the position of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the PA22 had not registered any electronic emissions from the PA28.

See and Avoid were assessed as **ineffective** because both aircraft had been obscured from the other, and the PA28 pilot had not seen the PA22 with the PA22 pilot having seen the PA28 only as it had passed overhead.



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