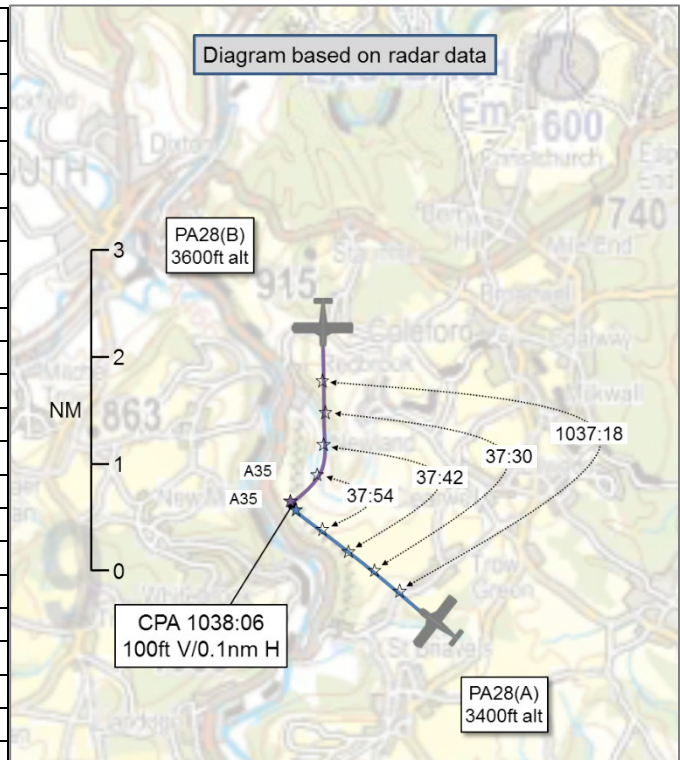


AIRPROX REPORT No 2019059

Date: 12 Apr 2019 Time: 1038Z Position: 5146N 00240W Location: 5nm S Monmouth

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	Listening Out	Unknown ¹
Provider	Bristol	NK
Altitude/FL	3400ft	3500ft
Transponder	A,C,S	A,C,S
Reported		
Colours	Red/white	Blue/white
Lighting	NK	Beacon
Conditions	VMC	VMC
Visibility	>10km	8km
Altitude/FL	3200ft	3000ft
Altimeter	1027hPa	QNH
Heading	320°	240°
Speed	90kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	50ft V/100m H	400ft V/1nm H
Recorded	100ft V/0.1nm H	



THE PIPER PA28(A) PILOT reports that he was a student pilot conducting a navigation exercise via Chippenham and Monmouth. Enroute from Chippenham to Monmouth, approximately 5nm southeast of Monmouth, he noticed a single-engine, low-wing aeroplane approaching right to left in his 1 o'clock. He believed that its pilot had noticed that they were potentially on a converging course and had rapidly descended to avoid collision. He was momentarily checking a fix on his map prior to the incident.

He assessed the risk of collision as 'High'.

THE PIPER PA28(B) PILOT reports that they were carrying out a navigation exercise via Abergavenny-Monmouth-Pontypool. The weather was good apart from some haze and they were in contact with Cardiff Radar under a Basic Service. The student had arrived at Monmouth and had just completed his right turn towards Pontypool and had started his timing. As they rolled wings level he spotted an aircraft on their left side at a similar level approximately 2nm away tracking towards them. He informed the student about the aircraft on a relative bearing of 270°. Although it was thought to be of no conflict he decided to descend to improve separation allowing the aircraft to pass behind and above them. The other pilot continued on track as far as they could determine. At no point did ATC warn them of the opposing aircraft and they decided that it was not an issue until receipt of the Airprox report.

He assessed the risk of collision as 'Low'.

Factual Background

The weather at Cardiff was recorded as follows:

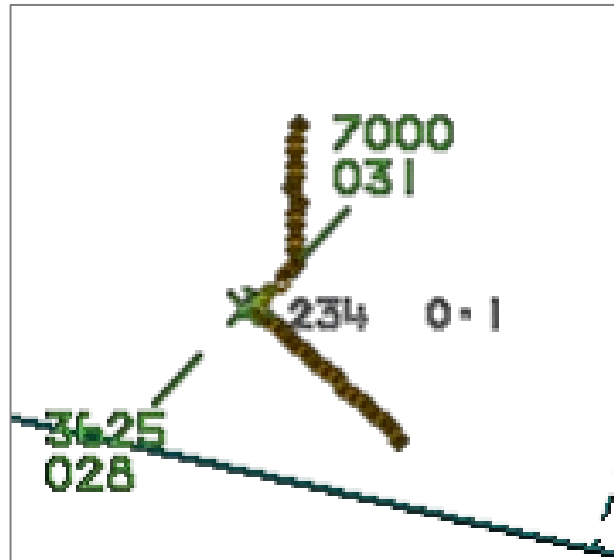
METAR EGFF 121020Z AUTO 09010KT 060V130 9999 BKN044 08/02 Q1027=

¹ The PA28(B) pilot reported he was in receipt of a Basic Service from Cardiff. CAA ATSI reported that the R/T recordings have been checked and neither of the pilots spoke to Bristol or Cardiff ATC at any point.

Analysis and Investigation

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 hazard². Because the incident geometry is considered as converging then PA28(A) pilot was required to give way to PA28(B)³. The radar sweep after CPA (1038:10) showed PA28(A) in a level right turn at FL031 (3500ft) and PA28(B) continuing on track having descend to FL028 (3200ft).



The UK AIP⁴ states under the title 'Frequency Monitoring Code' that pilots routing close to certain airfields outside CAS who are monitoring the promulgated ATC frequency, but do not require an Air Traffic Service, should select a local SSR conspicuity code. This will allow the appropriate ATCU to attempt to establish contact with an aircraft which is displaying such a code in order to resolve potential conflicts.

Summary

An Airprox was reported when 2 PA28s flew into proximity near Monmouth at 1038 on Friday 12th April 2019. Both pilots were operating under VFR in VMC. PA28(A) pilot was listening out on the Bristol Approach frequency and PA28(B) pilot reported that he was in receipt of a Basic Service from Cardiff, but no calls were registered on the recording of the frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs of the event. 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 discussed the actions of PA28(A)'s pilot. He reported that he was a student pilot routing from Chippenham to Monmouth and that he was listening out on the Bristol frequency. However, the Board noted that he was squawking 7000, not the listening code for Bristol. GA members commented that although it was not a requirement, if pilots were listening on a frequency then it was good airmanship to also select the listening squawk because this would give situational awareness to ATC in case they wished to contact the pilot for any reason (such as to provide traffic or airspace warnings). The PA28(A) pilot reported that he saw PA28(B) late (**CF4**), approaching right-to-left in his 1 o'clock on

² SERA.3205 Proximity.

³ SERA.3210 Right-of-way (c)(2) Converging.

⁴ ENR 1.6, Paragraph 2.2.5.

a converging course. This late awareness probably explained why the PA28(A) pilot had assessed that the two aircraft were much closer than actually measured or reported by the PA28(B) pilot. A GA member also noted that the PA28(A) pilot had reported that he had not seen the other aircraft earlier because he had momentarily been checking a fix on his map (**CF3**). Acknowledging that such tasks needed to be carried out, he commented that the incident highlighted the need to maintain a robust lookout at all times in Class G see-and-avoid airspace, ideally focusing attention outside according to the 80:20 rule for time prioritisation because lookout was often the only safety barrier available.

Turning to the pilot of PA28(B), the Board noted that he had reported that he had been in receipt of a Basic Service from Cardiff. However, although radar recordings reveal that his aircraft was displaying a Cardiff SSR code, there was no record of him contacting the Cardiff frequency around the period of the Airprox. Nevertheless, he had seen PA28(A) at a range of about 2nm, at a similar level and tracking towards them. Although the PA28(A) pilot was required to give way to them, the PA28(B) instructor had sensibly decided not to rely on this and had appropriately descended to avoid PA28(A) himself.

It was apparent to the Board that neither pilot was effectively in receipt of an ATS and members wondered whether both pilots would have been better served by requesting an ATS from Cardiff, which was publicised as a LARS unit. Had they both done so then they might have obtained some form of situational awareness about the other's aircraft (**CF1/2**), either from their respective position reports or a warning from ATC depending on the type of service being provided.

Turning to the risk, the Board noted that the PA28(B) pilot had reported seeing the other aircraft at approximately 2nm after having rolled out on their new track. However, looking at the radar traces it appeared that the aircraft were more like ½nm separated at the time. Nevertheless, although they agreed that safety had been degraded, they also agreed that PA28(B) pilot had subsequently been able to act in a timely and effective manner to negate the risk of a collision. Accordingly, the Airprox was assessed as risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

CF	Factor	Description	Amplification
Flight Elements			
• Tactical Planning and Execution			
1	Human Factors	• Communications by Flight Crew with ANS	Apt ATS not requested by pilot
• Situational Awareness of the Conflicting Aircraft and Action			
2	Contextual	• Situational Awareness and Sensory Events	Pilot had no, or only generic, or late Situational Awareness
3	Human Factors	• Distraction - Job Related	Pilot was distracted by other tasks
• See and Avoid			
4	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots

Degree of Risk: C.

Safety Barrier Assessment⁵

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

⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

Flight Crew:

Situational Awareness and Action were assessed as **not available** because neither pilot had any situational awareness of the other until they saw each other's aircraft.

See and Avoid were assessed as effective because, although the PA28(A) pilot only saw PA28(B) late, the latter pilot had seen the other aircraft in time to perform a timely and effective avoidance manoeuvre by descending as they converged.

