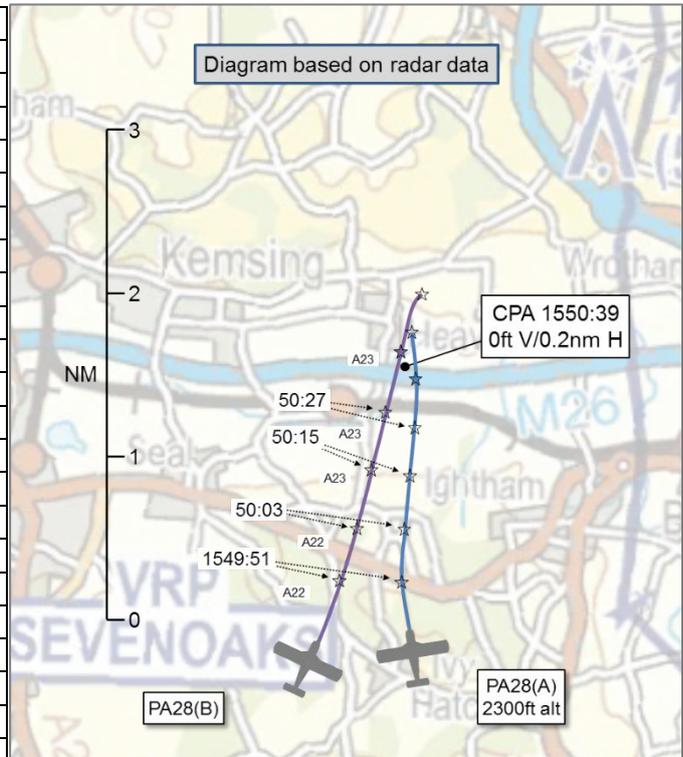


**AIRPROX REPORT No 2018284**

Date: 21 Oct 2018 Time: 1551Z Position: 5117N 00015E Location: 2nm NE Sevenoaks

**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	Basic	Basic
Provider	Farnborough	Southend
Altitude/FL	2300ft	2300ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White, green	White, blue
Lighting	Strobes	NK
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2200ft	~2000ft
Altimeter	QNH (1026hPa)	QNH (1025hPa)
Heading	010°	017°
Speed	95kt	108kt
ACAS/TAS	PilotAware	Not fitted
Alert	None	N/A
Separation		
Reported	0ft V/200m H	'uncertain'
Recorded	0ft V/0.2nm H	



**THE PA28(A) PILOT** reports being in straight-and-level cruise. He was aware of ATC trying to contact a pilot who had entered Class A, and was also visual with another aircraft passing down his right side when ATC alerted him to an aircraft approaching from behind on the left and converging at the same level. He looked over his shoulder and immediately saw the other aircraft, at a range of less than 500m. It was not clear what the other pilot was doing but he could gauge its heading and speed, and that it was going to pass ahead of him. As it drew ahead he considered turning right or descending but did not want to lose sight of it so he turned behind to ensure they were clear. He saw it continue to his right-hand side and it appeared to descend. No radio communication was heard from the other aircraft and ATC did not contact it so he did not believe it was in contact with anyone. The pilot noted that the incident took him by surprise and he did not think to report until after he had landed.

He assessed the risk of collision as 'High'.

**THE PA28(B) PILOT** reports that his recollection of the event was not completely clear because it had occurred 2½ weeks previously. He was in straight-and-level cruise when he became concerned by another aircraft in the 3 o'clock position at a similar altitude. The aircraft also appeared to be straight-and-level on a similar but slowly converging course. His impression was that it would eventually pass behind him, because the aircraft seemed to be traveling slightly slower. It did not appear to be an immediate threat at that time, but he felt that action was required to increase separation. His instinctive reaction was to adjust course slightly to the left (to slow the rate of convergence) and increase power in order to track more quickly ahead of the other aircraft. The 2 aircraft flew on almost parallel headings for 30-60 seconds, and he kept a close watch on the other aircraft as it moved further behind towards the 5 o'clock position, still at a similar level. Horizontal separation appeared to be increasing and he recalled that he began a shallow descent to increase separation vertically at this point. Once he saw the other aircraft pass behind he adjusted heading slightly to the right to ensure that their tracks diverged more quickly. Afterwards, he felt that separation had been consciously maintained, but in the

heat of the moment he had not fully considered that the other aircraft passing behind would take it through the blind spot in his 6 o'clock. He understood that if the geometry is considered to be converging then it was his responsibility to keep out of the way of the other aircraft. In retrospect he felt that a better course of action may have been to immediately descend and turn left to quickly achieve vertical and horizontal spacing, remain visual, and be in active control of separation throughout the encounter.

He assessed the risk of collision as 'Low'.

**THE FARNBOROUGH CONTROLLER** reports that no pilot report was given to him at the time of the incident and that he had no recollection of the event.

**THE SOUTHEND CONTROLLER** reports that an Airprox was not declared on frequency, or he would have taken the appropriate action, and that he did not recall the event.

## Factual Background

The weather at Southend was recorded as follows:

METAR EGMC 211550Z 26006KT CAVOK 18/09 Q1025=

## Analysis and Investigation

### UKAB Secretariat

Both 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>. If the incident geometry is considered as converging then the PA28(B) pilot was required to give way to the PA28(A)<sup>2</sup>. If the incident geometry is considered as overtaking then the PA28(A) pilot had right of way and the PA28(B) pilot was required to keep out of the way of the other aircraft by altering course to the right<sup>3</sup>.

## Summary

An Airprox was reported when two PA28s flew into proximity near Sevenoaks at 1551hrs on Sunday 21<sup>st</sup> October 2018. Both pilots were operating under VFR in VMC, the PA28(A) pilot in receipt of a Basic Service from Farnborough LARS(E) and the PA28(B) pilot in receipt of a Basic Service from Southend Approach.

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

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

Members first discussed the geometry of the event and initially debated whether the PA28(B) pilot was overtaking PA28(A) rather than simply passing it on the left. In the former case, PA28(B) should have altered course to the right of PA28(A) whereas, in the latter case, he was simply required not to operate in such proximity as to create a collision hazard (i.e. maintain suitable separation) and respect the fact that in converging on the other aircraft on his right, he was required to give way. Either way, it was for the PA28(B) pilot to avoid PA28(A). Having said that, the Board acknowledged that PA28(B) pilot had reported that he had not seen PA28(A) until it was abeam, in his right 3 o'clock position. Members agreed that it was at this stage that the PA28(B) pilot should have recognised that he was required to give way. Members commented that more effective ways of avoiding the other aircraft were by descending by 500ft, slowing down so that PA28(A) remained in sight until he was clear to cross behind, or by making a 270° left turn, again to pass behind the PA28(A). In the event, the PA28(B) pilot decided

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

<sup>2</sup> SERA.3210 Right-of-way (c)(2) Converging.

<sup>3</sup> SERA.3210 Right-of-way (c)(3) Overtaking.

to increase speed but remain co-altitude with the PA28(A). In doing so, he placed himself in a situation where he passed in front of the PA28(A) and in proximity. In this respect it was noted that SERA.3210 (Right-of-way) paragraph (c) states as follows:

‘An aircraft that is obliged by the following rules<sup>4</sup> to keep out of the way of another shall avoid passing over, under or in front of the other, unless it passes well clear and takes into account the effect of aircraft wake turbulence.’

The Board noted that the Farnborough controller had passed Traffic Information to the PA28(A) pilot, despite his being only in receipt of a Basic Service. Although it transpired that the PA28(B) pilot had seen the PA28(A) in sufficient time to prevent any danger of collision, the Farnborough controller was not to know that and had acted in the best interests of both pilots by discharging his duty of care. The Board commended him for providing such a level of service in what is known to be a very busy piece of airspace. In this respect, GA members noted that the PA28(B) pilot was in receipt of a Basic Service from Southend, and commented that in that location the pilot would likely have been better served by requesting a service from Farnborough (the designated LARS provider). Although he did see the other PA28 in good time, Farnborough LARS may have been able to provide Traffic Information at an earlier juncture, which would then have afforded him more options to resolve the potential conflict.

Members agreed that the PA28(B) pilot's decision to remain co-altitude was a contributory factor and discussed whether the proximity of the PA28(B) passing in front of PA28(A) was cause for concern. Some members felt that the PA28(A) pilot had had to take avoiding action on PA28(B) because of his subsequent turn behind. Others thought that whilst this had been a prudent measure to ensure separation was not further eroded, there had been no risk of collision because both pilots were fully aware of each other. In the end, the consensus was that each pilot had been visual with the other aircraft throughout, and that although they passed somewhat closer than was necessary, situational awareness, separation (0.2nm) and closing velocity at CPA had been such that normal safety standards had pertained.

### **PART C: ASSESSMENT OF CAUSE AND RISK**

**Cause:** The PA28(B) pilot flew close enough to PA28(A) to cause its pilot concern.

**Contributory Factors:** The PA28(B) pilot elected to remain co-altitude as they converged.

**Degree of Risk:** E.

#### **Safety Barrier Assessment<sup>5</sup>**

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

#### **Flight Crew:**

**Tactical Planning** was assessed as **partially effective** because it was felt that the PA28(B) pilot could have avoided the PA28(A) by a greater margin, laterally and/or vertically.

**Warning System Operation and Compliance** were assessed as **ineffective** because the PA28(A) PilotAware TAS did not alert (or was not reported as having alerted) as would be expected.

<sup>4</sup> Approaching head-on, converging, overtaking, landing and taking off.

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

