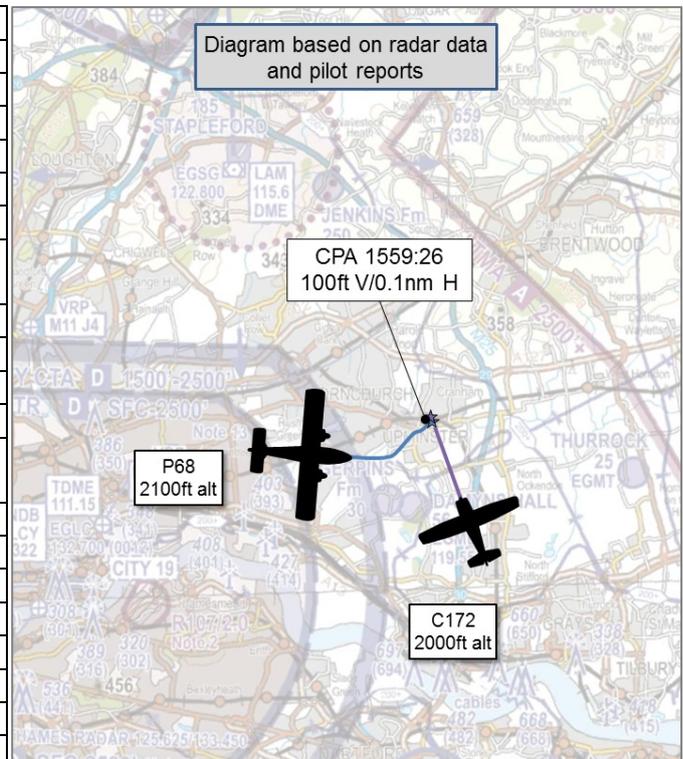


AIRPROX REPORT No 2019225

Date: 03 Aug 2019 Time: 1559Z Position: 5133N 00015E Location: Upminster

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	P68	C172
Operator	Civ Comm	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Listening Out
Provider	Swanwick TMS RDR	Stapleford
Altitude/FL	2100ft	2000ft
Transponder	A, C, S	A, C
Reported		
Colours	White	White, Grey, Red
Lighting	Nav, Beacon, Taxi, Landing	Not reported
Conditions	VMC	VMC
Visibility	>10km	10km
Altitude/FL	2300ft	2000ft
Altimeter	QNH (1019hPa)	QNH
Heading	270°	350°
Speed	110kt	90kt
ACAS/TAS	Not fitted	Not reported
Separation		
Reported	100ft V/0m H	Not seen
Recorded	100ft V/0.1nm H	



THE P68 PILOT reports that he was flying level, just over Dartford at 2300ft in communication with Heathrow Special [Swanwick TMS RDR]. He saw what looked like a PA28 at about 300-400m away in the 3 o'clock position. He passed over the other aircraft by about 100ft, in uncontrolled airspace.

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

THE C172 PILOT reports that he didn't see any other aircraft around Dartford. His 2 adult passengers are regular flyers and always alert him to any aircraft within a mile or two; they didn't see anything either.

THE SWANWICK TMS RDR CONTROLLER reports that the P68 pilot was on a survey, north of London City Airport, carrying out east to west runs at 2400ft; the east side of the run took him a couple of miles outside of controlled airspace. On one of the runs eastbound, as the P68 left the confines of CAS, he changed the service to a Basic Service and noticed two aircraft returns at conflicting levels to the P68 tracking northbound that appeared to be following the M25. He believed them to be in conflict with the P68 and passed specific Traffic Information to the P68 pilot. The P68 pilot then asked for a right turn to route westbound through the zone. He again passed Traffic Information on one of the unknown aircraft because he believed that this one was more of a conflict and the other one was not. The P68 pilot reported visual, and he approved the westbound routing back into the London City CTR. Once the P68 pilot reported visual he considered the conflict to be resolved. Also, as the P68 was outside controlled airspace he had no executive control over the P68 pilot's flight.

Factual Background

The weather at London City was recorded as follows:

METAR EGLC 031550Z AUTO 10009KT 9999 FEW044 23/14 Q1018

Analysis and Investigation

NATS ATSI Investigation Report

At 1558, the P68 was tracking eastbound on a survey run. The service was changed to a Basic Service as it left the EGLC zone and the controller passed Traffic Information on an unknown 7000 squawk: "traffic, same level, northbound." Both the service change and the traffic information were acknowledged by the P68 pilot.

At 1559:10, the P68 pilot requested a right turn (onto a westbound leg). The controller approved the turn back onto a westbound leg and passed Traffic Information again "traffic right off your right-hand side, possibly 100ft below." The P68 pilot reported visual with the traffic.

Upon leaving CAS on an eastbound leg, the P68 pilots service was changed to a Basic Service and Traffic Information given. Further Traffic Information was given as the aircraft requested a right turn onto a westbound leg. The P68 pilot reported visual with the traffic. No reference was made on the RT to an Airprox however the controller was advised by NATS ATSI that the aircrew had subsequently filed an Airprox some days later. Traffic was low-to-moderate and there were no equipment faults or weather conditions affecting the operation of the sector.

UKAB Secretariat

The P68 and C172 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as converging then the P68 pilot was required to give way to the C172².

Summary

An Airprox was reported when a P68 and a C172 flew into proximity near Upminster at 1559hrs on Saturday 3rd August 2019. Both pilots were operating under VFR in VMC, the P68 pilot in receipt of a Basic Service from Heathrow Special and the C172 pilot listening out on Stapleford Radio.

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 controller 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.

The Board began by looking at the actions of the Swanwick controller. The P68 was on a Basic Service outside Controlled Airspace and therefore the controller was not required to monitor the aircraft or pass Traffic Information. Because he had the capacity and was presumably looking at that part of his screen when he changed the P68 pilot's service, the controller became aware of the potential conflict and passed timely Traffic Information; the Board commended the controller for his diligence which enabled the pilot to gain visual contact with the C172. Some members wondered why the P68 had not requested a Traffic Service when operating outside Controlled Airspace and the NATS advisor explained that the type of service that an aircraft will receive when leaving Controlled Airspace was dependent both on what the pilot requests and the controller's workload; given the higher priority traffic within Controlled Airspace the controller would generally be unable to provide a Traffic Service and so it was likely that this had influenced the P68 pilot's decision to agree a Basic Service with the controller. The Board acknowledged this but reiterated that it was for pilots to request the level of service that they desired irrespective of ATC considerations; if the controller was unable to provide the requested service then that was very different to controllers applying a level of service as a default option which pilots might then feel obligated to accept.

¹ SERA.3205 Proximity.

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

Turning to the actions of the P68 pilot, although he had reported visual with the aircraft called out by the controller, some members wondered if he was visual with an aircraft further away. His report mentioned that he had seen a 'PA28-type' aircraft which is a very different configuration to a high-wing C172. However, the Board were shown a screenshot from the radar replay which showed that the only other aircraft on the radar was likely too far away for the P68 pilot to have mistaken it for the traffic reported by the controller to the P68 pilot. Accepting that there might have been a non-squawking PA28 in the vicinity that was not on the radar replay (unlikely because even a non-squawking PA28 would probably have registered as a primary return), members concluded that the P68 pilot was visual with the C172 and, that being the case, he should have done more to change his height or flight profile to increase the separation between himself and the C172 as they converged. Ultimately, it was for the P68 pilot to give way to the C172 and, with the options available to the P68 pilot, members thought that by flying over it at only 100ft separation he did not sufficiently give way to the C172 (**CF1,2&5**); although he had ensured there would be no collision if they both maintained their flight vectors, the P68 pilot could not know that the C172 pilot might not pull up as they crossed tracks.

Turning to the actions of the C172 pilot, members agreed that the P68 was slightly above the C172 and, with its high-wing configuration, it was likely that the P68 would have been obscured to the C172 pilot as it closed from the left with relatively little apparent relative movement even if it was visible at times (**CF3&4**).

The Board then considered the risk. The C172 pilot had not seen the P68, but the P68 pilot had received Traffic Information and was visual with the C172. Therefore, the Board concluded that, although safety had been degraded due to the reduced vertical separation as the aircraft crossed, there was no risk of collision; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTOR(S) AND RISK

Contributory Factor(s):

2019225			
CF	Factor	Description	Amplification
Flight Elements			
• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with
• Situational Awareness of the Conflicting Aircraft and Action			
2	Human Factors	• Lack of Action	Pilot flew into conflict despite Situational Awareness
• See and Avoid			
3	Contextual	• Poor Visibility Encounter	One or both aircraft were obscured from the other
4	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots
5	Human Factors	• Lack of Action	Pilot flew into conflict

Degree of Risk: C.

Safety Barrier Assessment³

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

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

Flight Elements:

Regulations, Processes, Procedures and Compliance was assessed as **ineffective** because despite Traffic Information the P68 pilot flew closer than desirable to the C172 and didn't comply effectively with SERA.3205.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the P68 pilot did not fully utilise the Traffic Information to suitable separation from the C172.

