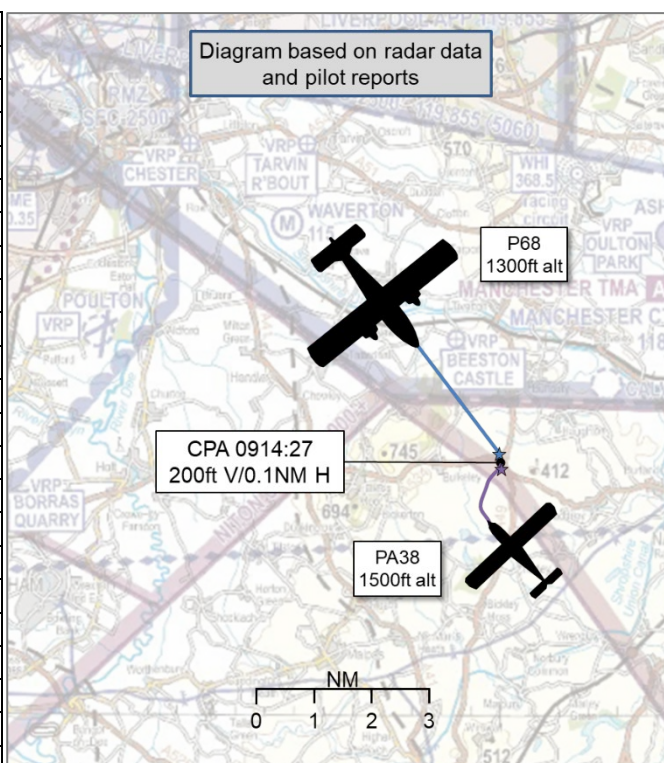


AIRPROX REPORT No 2021092

Date: 23 Jun 2021 Time: 0914Z Position: 5305N 00239W Location: 16NM SE Liverpool

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	P68	PA38
Operator	Civ Comm	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Liverpool	Liverpool
Altitude/FL	1300ft	1500ft
Transponder	A, C	A, C
Reported		
Colours	White, Blue	Red
Lighting	Nav, Beacon, strobe	Anti-Col
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1300ft	↓2000ft-1500ft
Altimeter	QNH (1024hPa)	QNH (1024hPa)
Heading	175°	010°
Speed	130kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	100-200ft V/<1NM H	0ft V/0.5-1km H
Recorded	200ft V/0.1NM H	



THE P68 PILOT reports that when they left Liverpool's controlled airspace, they were given a Basic Service. The Pilot Flying (PF) was leaning the aircraft with a lot of focus on the EGT gauges (as well as aircraft altitude/heading/speed etc) while the aircraft's autopilot was engaged. The PF was glancing out of the window and back inside the aircraft in 5sec intervals or so. The Pilot Monitoring (PM) was operating the radio whilst looking outside the window and monitoring for traffic, as well as monitoring the PF. The PM spotted the traffic in their 12 o'clock and converging, about 100-200ft above, and less than 1NM away. They believe the traffic was a red Tomahawk which may have been inbound to [airfield named] and registered as [C/S provided]. Corrective action was taken as the PF disengaged the autopilot and turned to the right, at which point the converging aircraft also turned to the right to avoid them, seeming to notice them as they began their turn to deconflict. Once clear of the Traffic they decided to contact Shawbury for a Traffic Service and climb to 3000ft QNH.

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

THE PA38 PILOT reports that during their descent and recovery back towards [destination airfield] at an approximate altitude of between 1500ft to 2000ft but possibly during the process of levelling off at 1500ft and approximately 7-8NM due west of Crewe and 2-3NM southwest of Calverley disused, they observed a light-twin aircraft (possibly a Partenavia) in their left 10 o'clock position, slightly low and in a right bank moving right-to-left. Although the other aircraft was relatively close, it was apparent that it would pass down their left side. They made a right turn to further increase their separation.

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

THE LIVERPOOL CONTROLLER reports that they were the radar controller at the time of the reported incident. At the time they were aware of a number of aircraft under a Basic Service outside of controlled airspace, however, at the time they were undertaking their other responsibilities as the radar controller (without a radar assistant) and therefore were unaware that one of the pilots considered the proximity of another aircraft to warrant an Airprox. Nothing was reported to them at the time and the first time

they were made aware of it was some two weeks later [UKAB note: Liverpool ATC were informed of the Airprox the day after the incident by UKAB].

Factual Background

The weather at Liverpool was recorded as follows:

METAR EGGP 230850Z 30006KT 260V340 9999 FEW030 18/12 Q1024

Analysis and Investigation

CAA ATSI

The PA38 had departed for a local flight, leaving controlled airspace at the Chester VRP at 0857:10. The P68 departed Liverpool at approximately 0906 and their first call to Liverpool Radar was at 0910:20 as they passed the Chester VRP. Both pilots were in receipt of a Basic Service from the Liverpool Radar controller. (Note: there was a change of controller between these two times).

Snapshots in this report are taken from the area radar replay and do not necessarily represent the picture displayed to the Liverpool radar controller. Only the P68 could be positively identified on the radar replay.

During this period the Liverpool controller was vectoring an aircraft into Hawarden airfield from the north of Liverpool and had at least two other aircraft on frequency. At 0913:20 another departing aircraft called and a Basic Service was agreed.

At 0914:00 the Hawarden aircraft was given a turn towards the Hawarden ILS localiser and cleared for the ILS approach. (The aircraft was not transferred to Hawarden until 0915:40). (Figures 1 & 2).

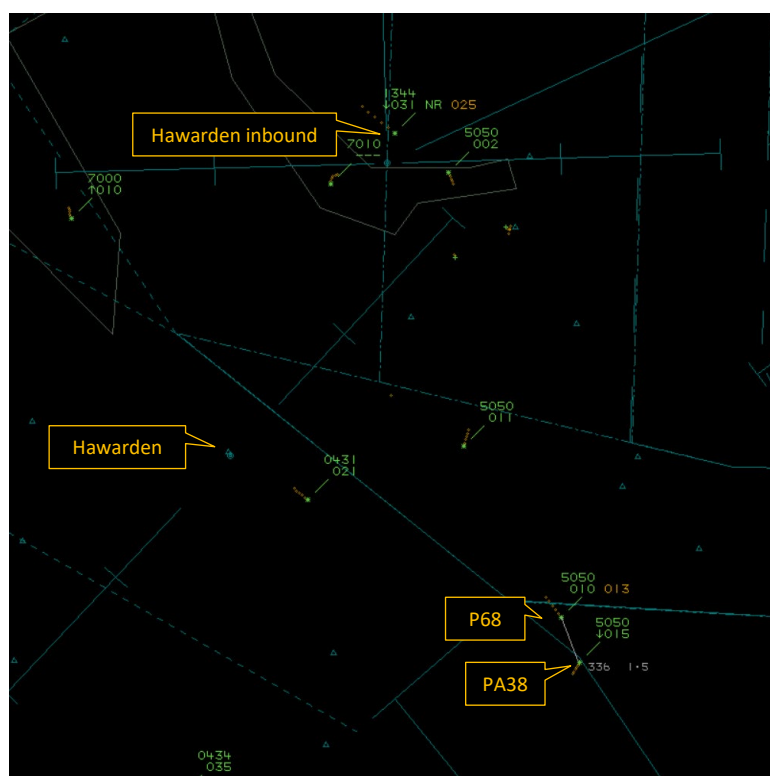


Figure 1: 0914:00

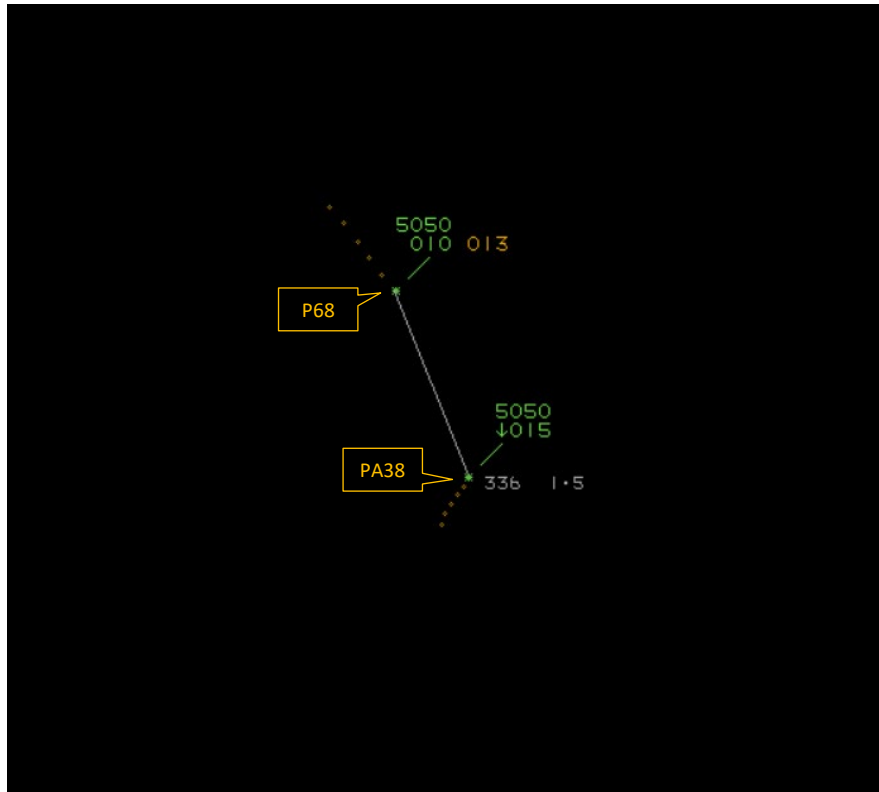


Figure 2: 0914:00

Between 0914:00 and CPA which occurred at 0914:26, there were no other aircraft calls heard on the RTF (Figures 3 & 4).

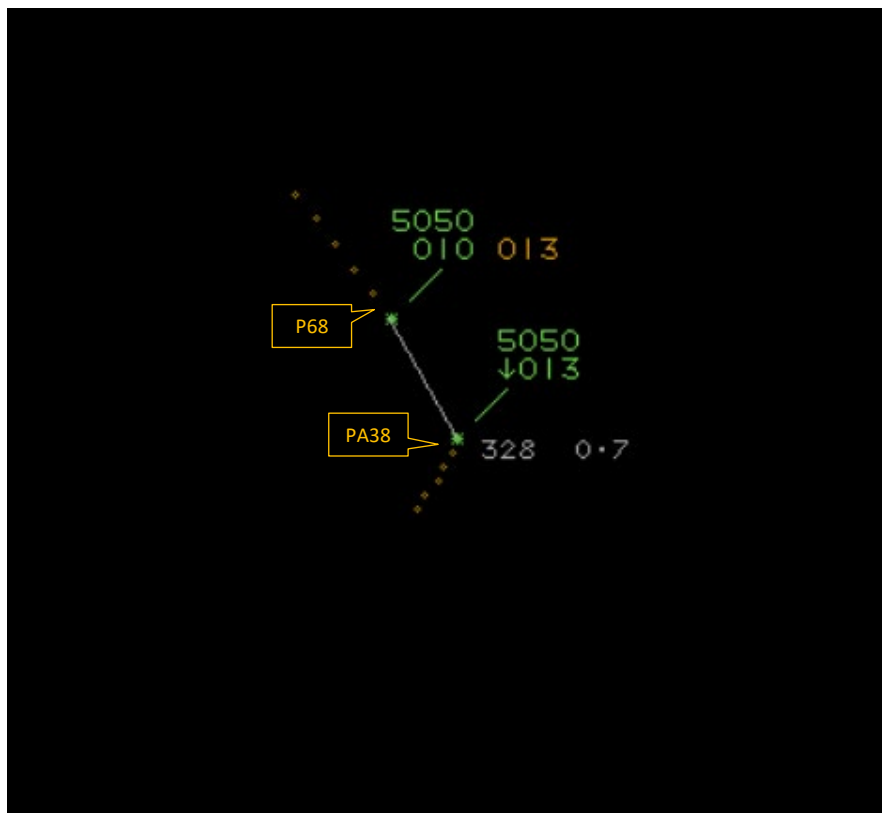


Figure 3: 0914:15

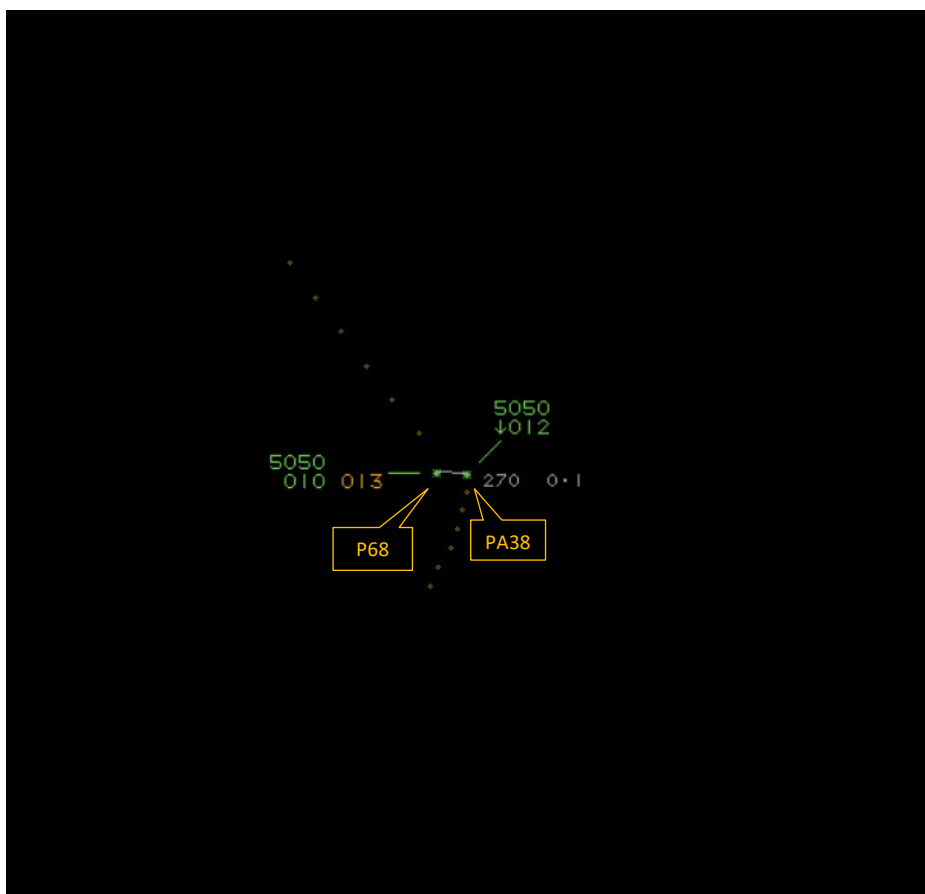


Figure 4: CPA 0914:26

Neither pilot referenced the Airprox on the RTF.

The report from the P68 crew stated that it was the PM who spotted the aircraft less than 1NM away and that the PF disengaged the auto-pilot and made a turn to the right, coincidental with the PA38 pilot turning to the right also. ATSI noted that when the crew changed to the next agency, they requested a Traffic Service.

The report from the pilot of the PA38 appears to indicate that they became visual with the P68 as it commenced its turn to the right, and that they believed the P68 would remain clear to their left, but they elected to carry out their own turn to the right to increase separation.

The Liverpool controller did not file a formal MOR, and their comments were forwarded by the unit direct to UKAB. The controller was unaware of the Airprox at the time and reported that they had been operating without an Air Traffic Assistant during this period. As no formal report nor unit investigation was undertaken, ATSI was unable to assess this incident fully. It should be noted that the unit is not equipped with STCA (Short Term Conflict Alert).

As the controller was vectoring an aircraft into an adjacent airfield at the time and responsible for monitoring its approach, it is possible that they were only focussed on that aircraft and its immediate surroundings on the radar display, rather than scanning both that aircraft and those others which were receiving a Basic Service. No Traffic Information was passed to either aircraft on the other by the Liverpool controller.

The proximity of the PA38 gave the crew of the P68 cause to be concerned that a risk of collision existed.

According to CAP774 UK Flight Information Services Chapter 2 Basic Service:

Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO. A pilot who considers that he requires a regular flow of specific traffic information shall request a Traffic Service (Para 2.5)

Also:

A controller with access to surveillance-derived information shall avoid the routine provision of traffic information on specific aircraft but may use that information to provide a more detailed warning to the pilot (Para 2.7).

But:

If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot (SERA.9005(b)(2) and GM1 SERA.9005(b)(2)) (Para 2.8).

Finally:

Whether traffic information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller (Para 2.9).

It is not known if the controller saw the P68 and PA38 approaching each other.

Liverpool ATC are reminded of their obligations under Regulation (EU) 376/2014 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018, Article 4, paragraphs 6(d) and 7, to submit a mandatory occurrence report, within 72 hours of when they are first made aware of an occurrence, and to conduct an analysis of the occurrence, in order to identify any safety hazards, followed by submission of follow up reports, in accordance with the 30 day and 3 month timescales contained in Article 11 of the regulation.

UKAB Secretariat

The P68 and PA38 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 If the incident geometry is considered as converging then the P68 pilot was required to give way to the PA38.²

Summary

An Airprox was reported when a P68 and a PA38 flew into proximity 16NM SE of Liverpool at 0914Z on Wednesday 23rd June 2021. Both pilots were operating under VFR in VMC and both pilots in receipt of a Basic Service from Liverpool.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings 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 first considered the actions of the P68 pilot. The Board were heartened that they had been utilising a second crew member (PM) to assist the PF with lookout whilst they were engaged with tasks that divided their attention between lookout and heads-in the cockpit monitoring instruments (**CF4**). It was the PM that had seen the PA38 and enabled the PF to take action to increase separation between the aircraft.

¹ (UK) SERA.3205 Proximity.

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

Turning to the actions of the PA38 pilot the Board noted that the pilot had seen the P68 as it was already in an avoiding action turn away from the PA38 (**CF5**).

Concerning both pilots, the Board agreed that being on a Basic Service may not have been not the best service to employ in that area, close to controlled airspace, and that a Traffic Service could have aided both pilot's situational awareness through the provision of Traffic Information from the Liverpool controller. Indeed the P68 pilot did subsequently request a Traffic Service shortly after the Airprox when they changed frequency (**CF2**) which made the Board wonder why they had not requested a Traffic Service as soon as they left controlled airspace.

The Board then looked at the actions of the Liverpool controller. Both pilots had requested a Basic Service from Liverpool. Some Board members wondered why the Liverpool controller had not passed generic Traffic Information to the pilots, but the controller had just changed over and they were controlling other aircraft on a higher service, and they were not required to monitor the aircraft under the terms of a Basic Service (**CF1**). Because of this, neither pilot had any specific information about the other aircraft, unless they had heard any transmissions on the frequency, which did not appear to have happened in this case (**CF3**).

Finally, the Board considered the risk involved in this Airprox. The P68 crew had seen the PA38 at about 1NM and turned to avoid. As such the Board determined that there was no risk of collision, but they considered that safety had been degraded and consequently, the Board assigned a Risk Category C to this Airprox.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2021092			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Situational Awareness and Action				
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
Flight Elements				
• Tactical Planning and Execution				
2	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
• Situational Awareness of the Conflicting Aircraft and Action				
3	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, or only generic, Situational Awareness
• See and Avoid				
4	Human Factors	• Distraction - Job Related	Events where flight crew are distracted for job related reasons	
5	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots

Degree of Risk: C.

Safety Barrier Assessment³

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

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 **not used** because the Liverpool controller was not required to monitor the flight under a Basic Service.

Flight Elements:

Tactical Planning and Execution were assessed as **partially effective** because both pilots would have been better served by requesting a Traffic Service to increase their situational awareness whilst operating in busy airspace.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any information about the other aircraft.

See and Avoid were assessed as **partially effective** because both pilots saw the other aircraft late.

