

AIRPROX REPORT No 2013143

Date/Time: 22 Sep 2013 1547Z (Sunday)

Position: 5320N 00246W
(3nm east of Liverpool Airport)

Airspace: Liverpool CTR (**Class:** D)

Reporting Ac **Reported Ac**

Type: PA38 (1) PA38 (2)

Tomahawk Tomahawk

Operator: Civ Trg Civ Trg

Alt/FL: 700ft 1200ft
QNH (1027hPa) NK

Conditions: VMC VMC

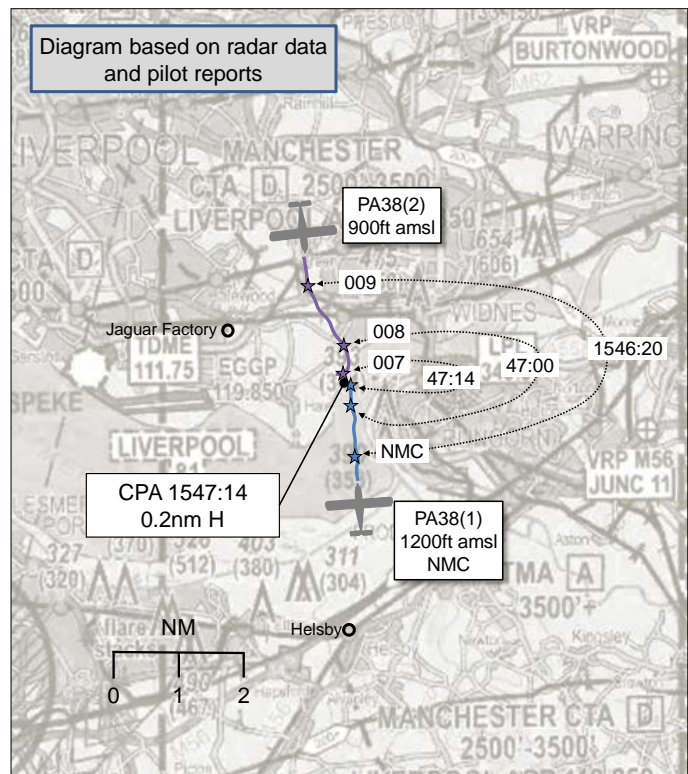
Visibility: 10+km 10+km

Reported Separation:

50ft V/200m H 0ft V/50-75ft H

Recorded Separation:

NK V/0.2nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PA38(1) PILOT reports flying a predominantly white aircraft, VFR, and squawking transponder Mode 3/A; he was under a Radar Control Service from Liverpool Tower, he thought, heading 360° on left-base [to RW27], at 75kt, with no significant cloud. After crossing the 'South Bank', he was given clearance to proceed to 'final number one'; the pilot recalls that there was no requirement for wake separation, and so his base-leg was normal. At the end of the base-leg, as he was about to turn on to final, the pilot of PA38(1) saw PA38(2) in 'very close proximity', 'heading directly towards' him, 'slightly higher' and 'slightly further into the pattern'. At the same time, the pilot of PA38(1) heard the Tower controller ask the pilot of PA38(2) if they had 'number one' in sight; he heard the PA38(2) pilot confirm that he had visual contact with PA38(1), and saw PA38(2) 'break-off' in a climbing right-hand turn. After PA38(2) was clear of his aircraft, the pilot of PA38(1) continued his approach.

He assessed the risk of collision as 'High'.

THE PA38(2) PILOT reports flying a predominantly white aircraft with navigation and strobe lights illuminated, squawking transponder Modes 3/A and C, VFR in VMC with no cloud, and in communication with Liverpool Tower. He was cleared to join the 'control zone' at Haydock Park VRP, and was instructed to route to the 'Jaguar Factory', which the pilot reports is a point 1nm north of the airport around the right-base position for RW27. The PA38(2) pilot recalls being instructed to 'join right-base' for RW27, and that he was 'No 2' to another aircraft, which was 'positioning left-base' for RW27; he acknowledged the instruction and looked out for the other aircraft. When he was on right-base, and conscious that he was still not visual with PA38(1), the pilot of PA38(2) recalls enhancing his lookout and, as he approached the extended centre-line for his turn on to final, he transmitted "ready to turn". The pilot of PA38(2) could not recall the response from the Tower controller but suddenly 'became visual' with PA38(1) 'in very close proximity' on his left-hand side; he carried out an 'avoiding right turn', and informed the Tower controller of his actions. He recalls that his aircraft was now ahead of PA38(1), which was turning onto final. Following instructions from the Tower controller, the pilot of PA38(2) 'broke-off' his approach orbited the 'Jaguar Factory' until he was cleared for a new approach.

He assessed the risk of collision as 'Medium'.

Factual Background

The weather at Liverpool at 1520 and 1550 was reported as:

METAR EGGP 221520Z 32007KT 290V020 9999 FEW030 20/13 Q1027

METAR EGGP 221550Z 32006KT 280V350 9999 FEW030 20/13 Q1027

Analysis and Investigation

CAA ATSI

ATSI had access to reports from both pilots, recorded area surveillance and transcription of the Liverpool Tower frequency. Additionally ATSI interviewed the Liverpool Tower controller. Both aircraft were operating VFR under an Aerodrome Control Service from Liverpool Tower on frequency 126.350MHz.

At 1541:30 UTC PA38(2) contacted Liverpool Tower routing “*towards Jag’s*” [the Jaguar Factory] and was instructed to report at ‘Jag’s’.

At 1541:41 PA38(1) contacted Liverpool Tower routing towards Helsby [south of the airfield] and was instructed to report at Helsby.

At 1544:29 PA38(1) reported at Helsby and was instructed to join left-base for RW27. The Tower controller reported being aware that both aircraft would arrive on final at roughly the same time and decided that PA38(1) would be No.1. At 1545:14 PA38(2) reported at Jag’s, was instructed to join right-base, and was informed that they would be No.2 to a Tomahawk joining left-base. The pilot of PA38(2) read back the instruction and replied that they were looking for the traffic. The two aircraft were approximately equidistant from the airfield, on opposite base-leg joins, 5.3nm apart (Figure 1).

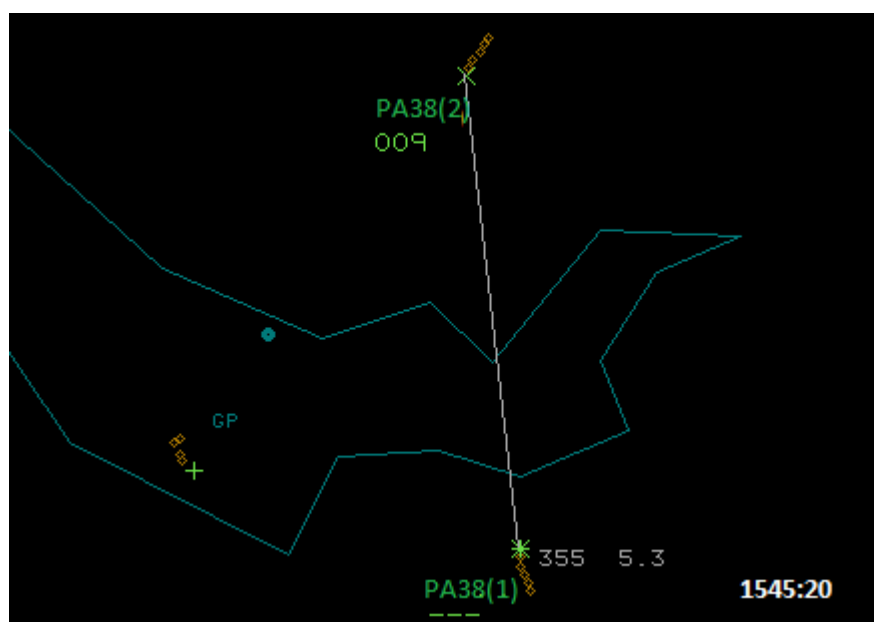


Figure 1.

The Tower controller became busy with other tasks including two IFR departures. At interview, the controller stated that they noticed that PA38(1) and PA38(2) looked close on the ATM¹ and, although the controller was visual with PA38(1), they could not see PA38(2). Figure 2 shows the relative positions of the two aircraft at 1547:01, when there is a crossed transmission between the

¹ Air Traffic Monitor

Tower controller and PA38(2) before the Tower controller asks PA38(2) if they are visual with the other Tomahawk. The pilot of PA38(2) replied “Affirm”.

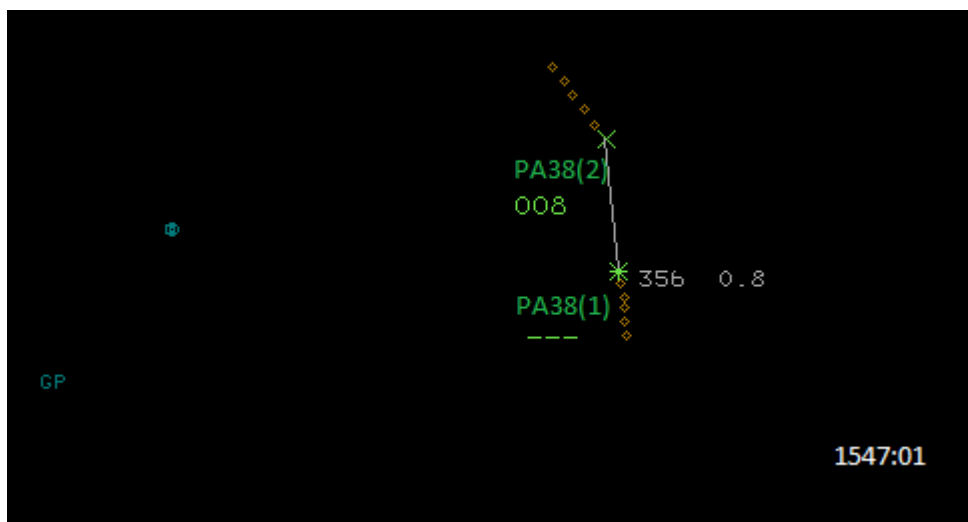


Figure 2.

At 1547:20 the PA38(2) reported that “*the traffic is behind*”. PA38(2) was positioned on final, 0.2nm ahead of PA38(1) (Figure 3). The Tower controller reported that they could not see PA38(2) on final from the VCR and instructed PA38(2) to route back towards right-base. PA38(2) turned away onto right-base and PA38(1) landed safely. PA38(2) was subsequently repositioned in the traffic sequence and also landed safely.

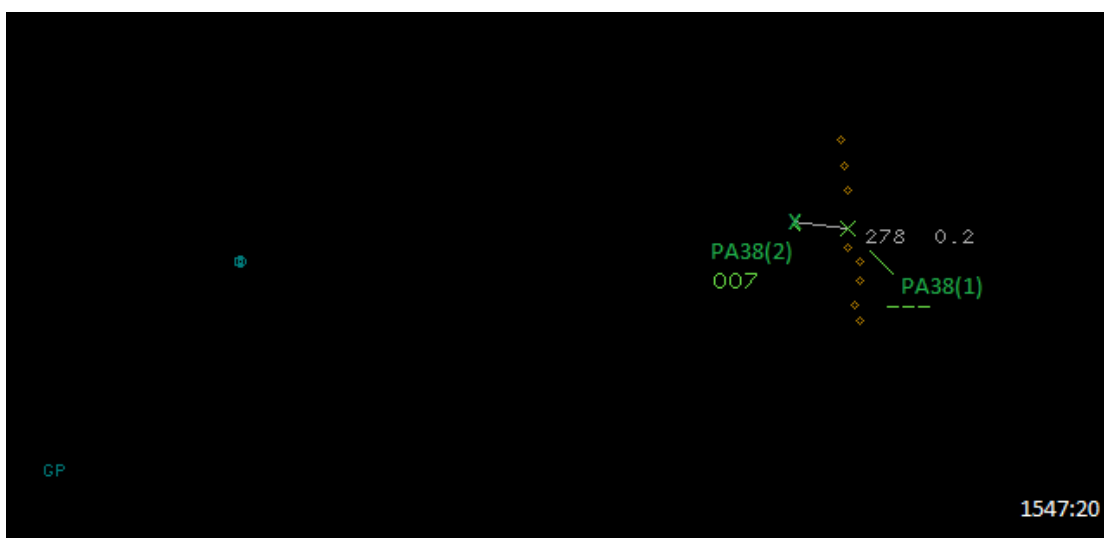


Figure 3.

The pilot of PA38(1) queried what the PA38(2) was doing, stating that it “*came very close to an AIRPROX*”.

The written report from the pilot of PA38(1) stated that they saw PA38(2) when about to turn final and estimated the minimum distance between the two aircraft as 50ft vertically and 200m horizontally. The written report from the pilot of the PA38(2) stated that, whilst on right-base, he was looking for PA38(1), and that he called ready to turn final; he believed that the Tower controller had replied ‘Roger’ [it is possible that this is a crossed transmission]. As he turned onto final, he saw PA38(1) on his left-hand side so he made an avoiding action right turn.

The Tower controller stated at interview that they were anticipating a call from PA38(2) on right-base, and were expecting to update the Traffic Information on PA38(1) at that point. This expectation was reinforced by the fact that the PA38(2) was locally based. The controller

deliberately made no mention of going to final to PA38(2) so as not to give the impression that the PA38(2) was able to turn final unrestricted.

Safety Notice 2013/01, Integrating Traffic in the vicinity of an Aerodrome, paragraph 3.6 states that:

‘whilst in some situations generic Traffic Information provided to a pilot may be useful to indicate how busy the aerodrome environment is, in order to achieve a safe, orderly and expeditious flow of air traffic and to assist pilots in preventing collisions, **specific traffic information is needed as the pilot gets closer to the aerodrome and is required to integrate with other traffic**’.

When the Tower controller decided on an order to land and instructed PA38(2) to join right-base number 2, the Traffic Information given to the PA38(2) on the PA38(1) was not sufficiently detailed to give the pilot of PA38(2) a good awareness of the position of PA38(1) – an indication of the position and range of the PA38(1) may have allowed the pilot of PA38(2) to plan his flight more appropriately. Although the Tower controller intended to update the Traffic Information on PA38(1) to PA38(2)’s pilot when he reported right-base, no positive instruction to report right-base was issued to him; nor was a positive instruction issued to the pilot of PA38(2) that may have prevented him positioning onto final without visually acquiring PA38(1), such as instructing PA38(2) to orbit on right-base until PA38(1) was in sight.

The Rules of the Air Regulations 2007, Rule 13 (Order of Landing) states:

(2) An aircraft shall not overtake or cut in front of another aircraft on its final approach to land.

(3) If an air traffic control unit has communicated to any aircraft an order of priority for landing, the aircraft shall approach to land in that order...’

Notwithstanding the lack of specific Traffic Information passed to PA38(2), the pilot was informed and acknowledged, that he was No.2 in traffic and continued to final without visually acquiring No.1 or requesting an update on the traffic’s position. PA38(2) also reported visual with PA38(1) when questioned by the Tower controller. This offered a degree of reassurance to the Tower controller when the potential for conflict was spotted, and hindered earlier intervention by the controller.

Summary

The Airprox occurred in Class D airspace between two PA38s that were both positioning on final approach to RW27 at Liverpool Airport.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

One of the Board members had experience flying in the Liverpool Zone and informed the Board that, whilst places like the Jaguar Factory were commonly used by pilots to report their progress, they are not published Visual Reporting Points. He also noted that there can be quite a large variation in the range pilots choose to report from these features and opined that this may make sequencing aircraft difficult for the controller. Some members noted that inside the Zone, which is Class D airspace, the controller was required to sequence the aircraft and could have used the ATM to better effect, perhaps by instructing the pilot of PA38(2) to orbit earlier. Other members opined that, regardless of instructions from ATC, the pilots had a responsibility to avoid collisions and that the Pilot of PA38(2), having been told that he was No2, should have ensured he could see the aircraft ahead before proceeding to final approach. There was some debate as to the relative degrees to which the controller and pilot had contributed to the occurrence and the Board agreed that the cause was that,

in the absence of positive control, the pilot of PA38(2) had flown in to conflict with PA38(1). The Board noted that although the pilot of PA38(2) had seen the other PA38 very late, he had been able to take avoiding action and achieve a CPA of 0.2nm, and members agreed that the degree of risk was B.

ATSI Informed the Board that Liverpool ATC had produced a standards bulletin reminding controllers of their responsibilities for providing Traffic Information and had agreed to highlight the section of the updated CAP493 which incorporates the information in Safety Notice 2013/01² to all staff as part of the unit competency scheme.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: In the absence of positive control by ATC, the PA38(2) pilot flew into conflict with PA38(1).

Degree of Risk: B

ERC Score³: 20

² SN 2013/001 Integrating Traffic in the Vicinity of an Aerodrome has been incorporated into CAP493 Section 2

³ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.