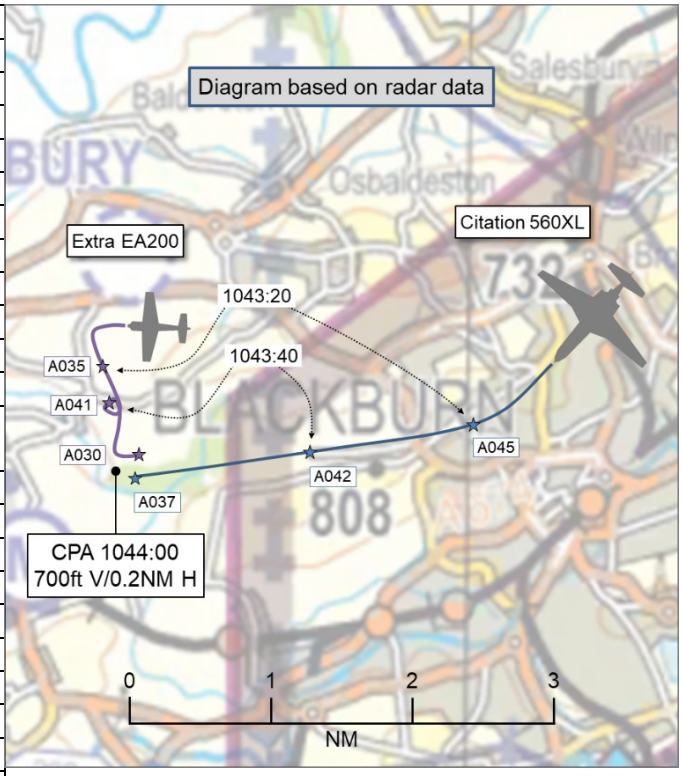
AIRPROX REPORT No 2022151

Date: 27 Jul 2022 Time: 1044Z Position: 5345N 00233W Location: 5NM E Preston

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Citation 560XL	Extra EA200
Operator	Civ Comm	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR[1]	VFR
Service	Procedural	Basic
Provider	Blackpool App	Barton Information
Altitude/FL	3700ft	3000ft
Transponder	A, C, S+	A, C, S
Reported		
Colours	White	White
Lighting	Nav, anti-cols, strobes, taxy	Strobe
Conditions	IMC	VMC
Visibility	>10km	>10km
Altitude/FL	3800ft	2000-4000ft
Altimeter	QNH (1021hPa)	QNH (NK hPa)
Heading	270°	*'aerobatic'*
Speed	200kt	*'aerobatic'*
ACAS/TAS	TCAS II	Not fitted
Alert	TA	N/A
Separation at CPA		
Reported	80ft V/100m H	100ft V/0.5NM H
Recorded	700ft V/0.2NM H	



THE CITATION PILOT reports that they were in a descent in IMC with scattered to broken clouds and had been cleared for the RNP RW28 at Blackpool. They were informed by ATC of traffic at 3300ft in the MIFKO[2] area. When breaking cloud at around 3800ft they got a TCAS TA and almost immediately noticed an aircraft doing aerobatics at more or less the same position and altitude. The other aircraft was in a vertical climb and then it turned in a 'hammerhead' initially towards them. At that time they assessed that the aircraft wouldn't be a further threat as it continued the turn below and away from them, and they continued their approach. They notified ATC of this occurrence. The Citation pilot opined that in Class G uncontrolled airspace, this aircraft should have stayed 1000ft underneath the clouds unless they're below 3000ft, continuing "*It's strange that specifically this position (in the instrument approach areas of Blackpool and Warton) was chosen to perform aerobatics and that it did not follow Class G airspace rules*". No avoiding action was taken as it was unclear which direction the aerobatic aircraft would take.

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

THE EA200 PILOT reports that they were conducting aerobatic training to east of Warton MATZ in the altitude block 2000-5000ft AMSL. They were in receipt of a Basic Service from Manchester Barton who had mentioned that they thought Warton ATC was closed at the time of flight. They were squawking 7004 with Mode S and ADS-B out. A light-coloured business jet was seen approaching from the east at approximately 4000ft. Aerobatic manoeuvres were stopped, a slight descent initiated and they manoeuvred to maintain visual separation. They did not consider the risk of collision sufficient to raise an Airprox report.

[1] The Citation pilot reported being in receipt of a Procedural Service under VFR in IMC
[2] MIFKO is located 11NM E Warton and 0.1NM S of the CPA.

The pilot assessed the risk of collision as 'None'.

THE BLACKPOOL CONTROLLER reports that they had provided a Procedural Service to [the Citation pilot] which was due in via POL and had been cleared to BPL but told (through Scottish Control) to expect the RNP via MIFKO. The arrival had been coordinated with Warton Radar who had nothing to affect the flight so, on initial contact, the pilot's position was ascertained and they were asked if they were happy to continue with the RNP approach. The pilot was happy to continue and they were cleared for the RNP via MIFKO. Warton Radar called [the Blackpool controller] shortly after, asking to what level the jet was descending. They told them that they had been cleared for the approach and would be making a continuous descent towards Blackpool. The Warton Radar controller informed [the Blackpool controller] of unknown traffic manoeuvring in vicinity of MIFKO at approximately 3300ft. This traffic information was immediately relayed to the pilot who acknowledged. Shortly afterwards, the pilot reported that they had visual contact with the traffic and that it was an aerobatic aircraft. [The Blackpool controller] asked if [the Citation pilot] had passed MIFKO, to which the pilot replied that they had and were about to pass NH28I [6NM E Warton]. The pilot continued their approach and landed safely. A short while later, the [Citation] pilot called and spoke to the ATSA, and informed them that they had received a TCAS TA; but as far as [the Blackpool controller] was made aware at the time, this would not be an Airprox.

THE MANCHESTER BARTON AFISO reports that they recalled a transmission being made on frequency by the pilot of the EA200 that they had just seen or passed close to a business jet on the final approach into Blackpool. The EA200 was in receipt of a Basic Service from Barton Information. The RT recorder had failed at the time of the report and only static could be heard. They cannot recall the exact transmission from the pilot of the EA200, but at the time they were not under the impression that an Airprox had occurred so did not log any details of the report.

Factual Background

The weather at Blackpool and at Warton was recorded respectively as follows:

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METAR EGNH 271050Z 33008KT 290V360 9999 FEW015 SCT045 17/12 Q1021
METAR EGNO 271050Z 24005KT 200V270 9999 FEW028 SCT043 18/11 Q1020
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Analysis and Investigation

CAA ATSI

The Citation pilot had been cleared for the RNP approach to RW28 via MIFKO and was in the descent to altitude 3500ft. The pilot was in receipt of a Procedural Service from Blackpool. The EA200 pilot was conducting aerobatic training in the band 2000 to 5000ft, in the vicinity of MIFKO. The pilot was in receipt of a Basic Service from Barton. The Blackpool controller was operating in a combined Aerodrome and Approach non-radar configuration. They reported that they had coordinated the arrival of the Citation with Warton Radar who advised them that they had no known traffic to affect. They subsequently received a telephone call from the Warton Radar controller, warning them that there was unknown traffic displaying on the Warton radar in the vicinity of MIFKO and that the pilot was not speaking to or in receipt of a service from Warton ATC. The Barton FISO reported that they recalled receiving information from the EA200 pilot confirming that they had just seen or passed close to a business jet on the final approach to Blackpool.

ATSI had access to reports from the pilots of both aircraft, and the Blackpool and Barton controllers. The area radar and Blackpool RT recordings were reviewed for the relevant period. RT recordings were not available from Barton due to their recording equipment having failed.

At 1042:30, the Citation pilot made initial RT contact with the Blackpool controller. They advised that they were descending to FL50, inbound to Blackpool, with information Papa. A Procedural Service was agreed, and the controller requested the pilot's range from the BPL and passing level. The pilot responded that they were 23.3NM from the BPL and on a QDR of 090°. The controller asked the

pilot if they could accept the RNP approach for RW28 via MIFKO. The pilot responded with, "*yes please, if possible*".

At 1042:40, the pilot was cleared for the RNP approach for RW28 via MIFKO, the QNH of 1021hPa was passed, and the pilot was instructed to report passing MIFKO. The pilot provided a full and accurate readback of the clearance, advised that they were descending to altitude 3500ft, and agreed to report passing MIFKO.

At 1043:20, the controller advised the pilot, "*Caution, just been advised by Warton that there's some traffic manoeuvring in the vicinity of MIFKO, indicating altitude 3300ft*." The pilot responded, "*OK copied that, we'll be looking.*" The controller advised, "*Caution, on a 6-mile final for RW28 at Blackpool you may see Warton Airfield on your left-hand side.*" The pilot responded, "*Copied that, we'll try not to land on that one.*"

At 1044:00, CPA occurred.

At 1045:00, the pilot advised the controller, "*We had the traffic in sight, an aerobatics aircraft doing aerobatics over MIFKO.*" The controller acknowledged and asked the pilot if they were passing MIFKO now. The pilot responded that they had just passed MIFKO and were now 2 or 3NM east of the intermediate fix. The pilot was instructed to report approaching the final approach fix.

The Blackpool controller had coordinated the arrival of the Citation with Warton Radar and at the time of the call there was no traffic in the vicinity to affect the arrival. The Blackpool controller was unaware of the presence of the EA200 until the Warton controller subsequently advised them that they could see traffic in the vicinity of MIFKO. The EA200 pilot was not in communication with or receiving a service from Warton ATC and the intentions of the pilot were unknown to the Warton controller. The Warton controller identified a potential hazard and warned the Blackpool controller of the presence of the EA200. Upon receipt of the information from the Warton controller, the Blackpool controller issued a warning to the Citation pilot, who subsequently reported as having had the traffic in sight.

In the absence of the EA200 pilot being in communication with Blackpool or Warton ATC, there was nothing further that the controllers could do to assist the pilots in meeting their collision avoidance responsibilities. The Warton controller should be commended for their vigilance in detecting the confliction, and for their teamwork and proactive approach in communicating their concerns to the Blackpool controller.

Blackpool and Barton ATC are reminded of their obligations under Regulation (EU) 2017/373 of 1 March 2017 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018 ATM/ANS.OR.A.065 paragraphs (a) through (e), with regards to the initial submission of a mandatory occurrence report and any follow up reports within the specified timescales as defined within Regulations (EU) 996/2010 and 376/2014.

UKAB Secretariat

Analysis of the NATS radar replay was undertaken and both aircraft could be positively identified from Mode S data (see Figure 1). The diagram was constructed and the CPA determined from the radar information. The CPA was assessed to be at 1044:00 with the aircraft in the positions shown in Figure 2.

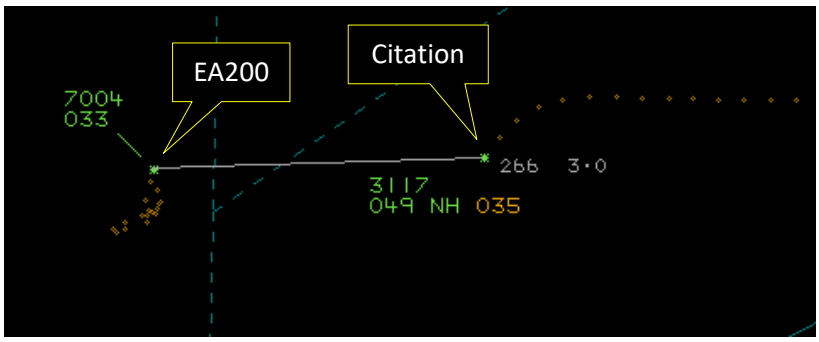


Figure 1 - 1043:00

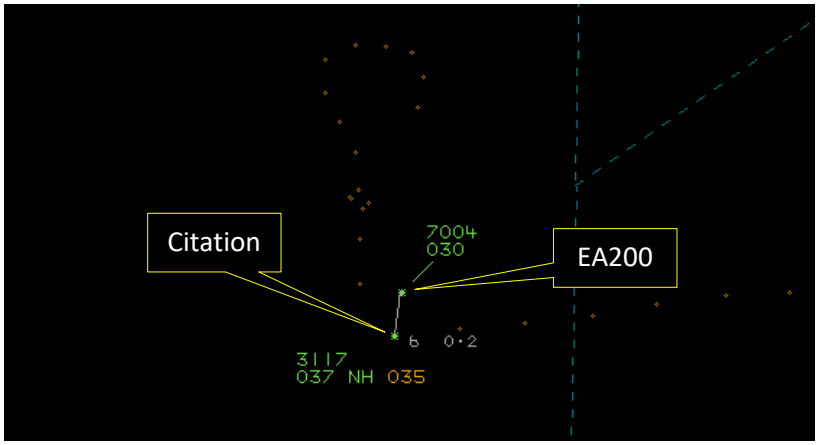


Figure 2 - CPA at 1044:00

The Citation and EA200 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[3] If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.[4] If the incident geometry is considered as converging then the Citation pilot was required to give way to the EA200.[5]

Summary

An Airprox was reported when a Citation 560XL and an Extra EA200 flew into proximity 5NM east of Preston at 1044Z on Wednesday 27th July 2022. The Citation pilot was operating under IFR in IMC, in receipt of a Procedural Service from Blackpool Approach. The EA200 pilot was operating under VFR in VMC, in receipt of a Basic Service from Barton Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved 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 discussed the actions of the pilot of the Citation and members concurred that this incident had reflected some of the typical hazards that could be expected when flying a procedural approach within Class G airspace. It was acknowledged that there had been some considerable startle-factor in this case, notwithstanding that the crew of the Citation had received a TCAS Traffic Alert (**CF6**), albeit only an instant before visually acquiring the EA200. Given that the pilot of the Citation had had generic situational awareness of traffic in the vicinity (**CF5**), Members discussed whether the pilot of the Citation had provided for adaption of their plan to continue their approach to Blackpool. It was

[3] (UK) SERA.3205 Proximity.
[4] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.
[5] (UK) SERA.3210 Right-of-way (c)(2) Converging.

concluded that there had been little option other than to continue given the unpredictable movements of the EA200.

The Board next turned their attention to the actions of the pilot of the EA200 and, whilst noting the event narrative supplied by the Citation pilot had opined that the EA200 pilot had not followed the rules for flight outside controlled airspace, decided that it was for the pilot of the EA200 to have made their own judgement in respect of their compliance with the applicable regulations. The Board next considered the location chosen by the pilot of the EA200 to have performed aerobatics. Whilst members recognised that the choice of suitable areas had been very limited and expressed sympathy for the pilot in that respect, it was felt that the location had not sufficiently taken into account the risk to traffic flying a procedural approach to Blackpool or to Warton (**CF4**). Members noted that the pilot of the EA200 had been operating at a significant distance from their ATS provider and agreed that it would have been far more prudent to have sought a service from Warton Radar in this instance (**CF3**). Additionally, it was observed that both Blackpool and Warton have published instrument approach procedures (denoted on 1:250,000 and 1:500,000 charts by 'feathers') and that the pilot of the EA200 had been operating approximately 12NM therefrom. The Board agreed that the pilot of the EA200 had not had any situational awareness of the Citation (**CF5**).

The Board turned their attention to the actions of the Warton Radar and Blackpool Approach controllers and praised their vigilance in having been aware of the EA200 and to have passed that information onwards to the pilot of the Citation. The coordination between the two units, the Board concluded, had provided the Blackpool controller with generic situational awareness (**CF2**) who, consequently, had then been able to relay the Traffic Information, albeit somewhat generic in nature. The pilot of the EA200 had been receiving an ATS from the Barton FISO who had not been required to monitor the flight under the terms of a Basic Service (**CF1**).

In summation of their discussions and in determination of risk, some members considered that this encounter represented a situation that could be considered as 'normal operations' in Class G airspace and wished to assign a Risk Category E to this Airprox, whilst others thought that the relative flight paths and manoeuvring of the EA200 had led to a reduction in normal safety parameters. After further discussion, a majority view prevailed and the Board concluded that safety had been degraded, that the pilot of the Citation had been concerned by the proximity of the EA200 (**CF7**), but that there had been no risk of collision. Consequently, the Board assigned a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022151			
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
2	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	Flight Elements			
	• Tactical Planning and Execution			
3	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
4	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
	• Situational Awareness of the Conflicting Aircraft and Action			
5	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness

	• **Electronic Warning System Operation and Compliance**			
6	Contextual	• ACAS/TCAS TA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system traffic advisory warning triggered	
	• **See and Avoid**			
7	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C

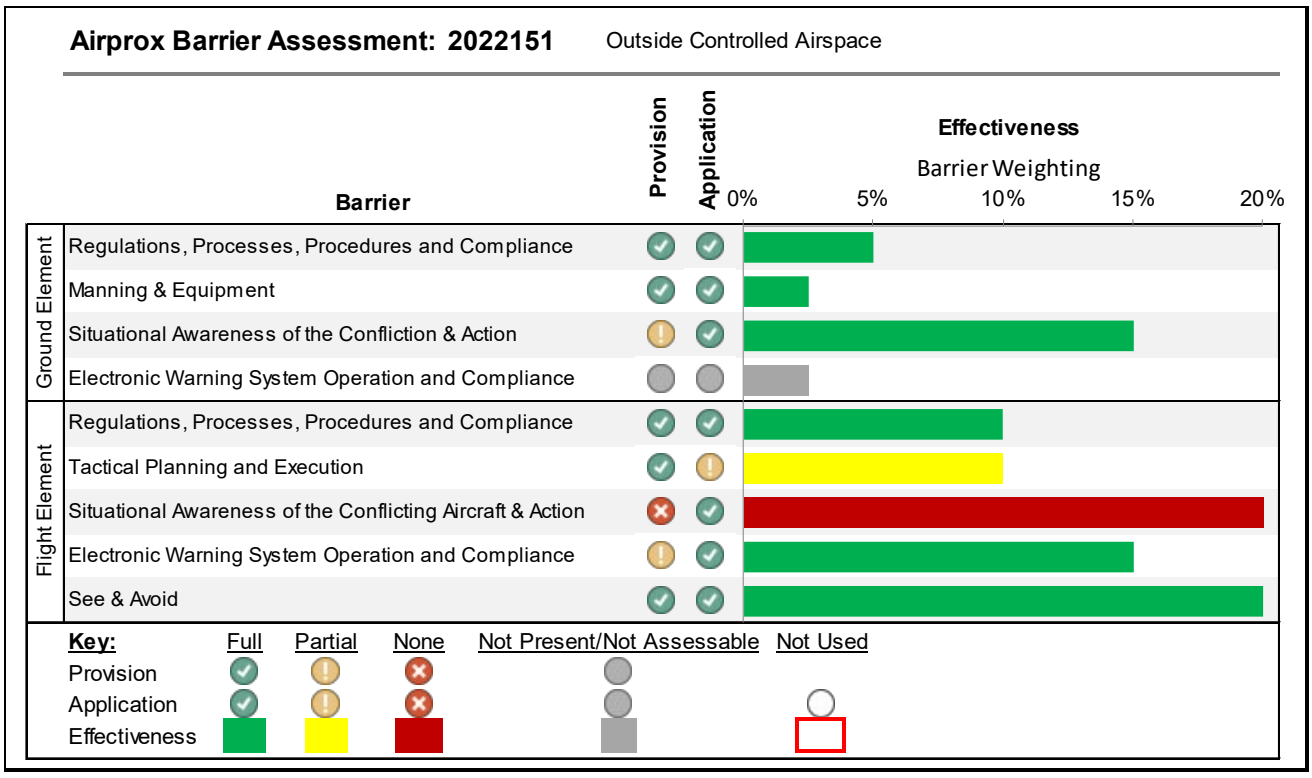
Safety Barrier Assessment[6]

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because it may have been far more prudent for the EA200 pilot to have been in receipt of an ATS from Warton whilst operating in that location. It may also have prudent for the EA200 pilot to have more fully considered their choice of location for performing aerobatic exercises.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the EA200 pilot had no situational awareness of the Citation. The Citation pilot had been passed generic information in respect of the EA200.



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