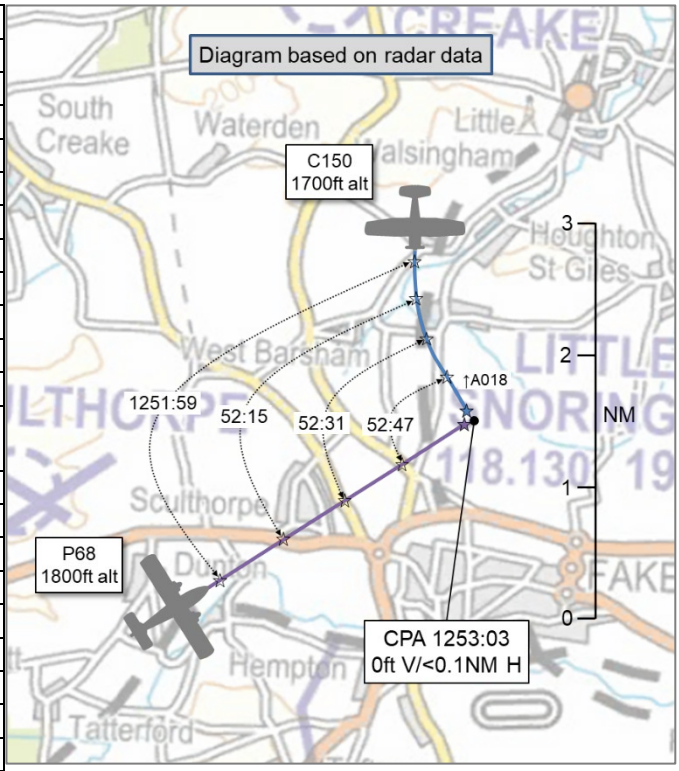
AIRPROX REPORT No 2021194

Date: 22 Sep 2021 Time: 1253Z Position: 5251N 00051E Location: 1NM N of Fakenham

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C150	P68
Operator	Civ FW	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	Traffic
Provider	Little Snoring	Marham Director
Altitude/FL	1800ft	1800ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White	White, blue
Lighting	Beacon	Nav, beacon, strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1300ft	1600-1700ft
Altimeter	QNH (1026hPa)	QNH (NK hPa)
Heading	170°	'NE'
Speed	85kt	125kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	100ft V/75m H	NR V/NR H
Recorded	0ft V/<0.1NM H	



THE C150 PILOT reports that, after a 30min flight towards the coast and then heading E to Sheringham, they returned from Sheringham heading for Langham then S towards Little Snoring. They were squawking 7000 throughout the flight and after leaving [their departure airfield's] circuit, checked Norwich ATIS QNH (1026hPa). They listened-out on Norwich radar but did not contact or request a service. They switched to Little Snoring frequency after passing Langham and transmitted blind their intention to join the circuit on left-hand downwind for RW25. Their flight had been carried out at approximately 1600ft until this point, when they began a gradual descent. They had been continually looking out but, bearing in mind their position on the extended centreline of RW25 and their joining intentions, they were focused on the circuit at the moment they saw the P68. They did not see the P68 deviate from its heading or take any avoiding action. They continued in the circuit and completed their flight normally. They reported the Airprox to the airfield manager and, on returning home, (at approximately 1600), they called Norwich ATC. An assistant took all the details and promised to get 'someone from radar' to call them. They had not heard from them at the time of submitting this report. On checking Flightradar24 it became apparent that [the P68] had been making multiple passes at about 1400-1500ft for a considerable time, presumably carrying out survey work. Passing close to or overhead an active airfield at these altitudes is highly dangerous and, when they checked NOTAMs at 1000Z, they saw nothing regarding low-level survey flights. They would add that, had they elected to make a standard overhead join, the outcome might have been far worse. They opined that, to transit safely, the P68 ought to have been at 3000ft or above.

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

THE P68 PILOT reports that they were on the Marham frequency working on SW-NE lines. They recall being with Marham Director, which gave them a Traffic Service based on radar, and that the controller called traffic to them on their left. They were visual with the traffic at all times, which they reported back to Marham. They continued on the line, being visual with the other aircraft, until their paths crossed.

They do not consider this episode to be an Airprox because they were visual with the traffic at all times and felt that their distance was reasonable and did not affect the safety of them continuing on their line. What does bother them now is that the position of Little Snoring is so close to both Norwich and Marham, either of which could have provided the other pilot with a radar service with information of traffic in the vicinity of the airfield, but they chose deliberately not to use these services. They did talk to the PIC of the C150 over the telephone a few days after this. The other pilot suggested that the P68 pilot could check-in on the Little Snoring frequency when doing work in the Marham area, and the P68 pilot suggested back that they maybe should consider using some of the radar services that they are lucky enough to have in that area.

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

THE MARHAM DIRECTOR CONTROLLER reports that one of the aircraft involved ([the P68]) was under a Traffic Service with Marham ATC, the other was not receiving a service from Marham ATC. The controller vaguely remembers the incident as Traffic Information was given to [the P68 pilot] allowing them to gain visual contact with a conflicting aircraft (believed to be the [C150]). However, they cannot recall what lateral or vertical separation was achieved. [The P68 pilot] did not declare an Airprox on frequency.

The controller perceived the severity of the incident as 'Low'.

THE MARHAM SUPERVISOR reports that this is a retrospective report. Nothing was said to the Supervisor at the time because the ATCO undertaking a standards check correctly called Traffic Information, allowing the pilot of the aircraft to get visual contact with conflicting traffic. The radio replay is now unavailable due to the Airprox being more than 30 days ago [UKAB Note: Marham ATC was informed of the Airprox, and requested to file a report and preserve recordings in accordance with MAA RA1410, via email on 1st October 2021]. The weather conditions remained Blue at Marham according to the log book.

Factual Background

The weather at Marham and Norwich Airport was recorded as follows:

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METAR EGYM 221250Z 23009KT 9999 SCT025 20/14 Q1025 NOSIG RMK BLU BLU=
METAR COR EGSH 221250Z 22009KT 190V270 9999 FEW024 20/14 Q1026 NOSIG=
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Analysis and Investigation

Military ATM

The C150 pilot was returning towards Little Snoring following a short flight to the north and east. They reported that they were listening-out on the Norwich radar frequency, however, had not contacted Norwich or requested a service. They switched back to the Little Snoring frequency and made blind transmissions of their intention to join the visual circuit which was followed by a gradual descent from 1600ft to join as transmitted. They reported that they saw the P68 and did not see it deviate from its heading or take avoiding action. Separation was reported as 100ft vertically and 75m horizontally.

The P68 was working SW-NE lines under the control of Marham Director. They reported that Traffic Information was passed and that the P68 pilot remained visual with the reported traffic throughout. They did not consider the event to be an Airprox and provided no separation information.

The Marham Controller report provided little additional information as the report was raised around 6 weeks after the Airprox had occurred. They have a vague recollection of the incident and believed they passed Traffic Information.

Figures 1 and 2 show the positions of the C150 and the P68 at relevant times during the Airprox. The screenshots are taken from a replay using the NATS Radars which are not utilised by Marham and, therefore, may not be representative of the picture available to the Marham Director controller.

Although it was reported that Traffic Information had been passed, due to the lack of a tape transcript it is unknown at what range it was passed. The range at which Traffic Information would have been expected is shown at Figure 1; CPA was measured at 0.1NM and 0ft and is shown at Figure 2.

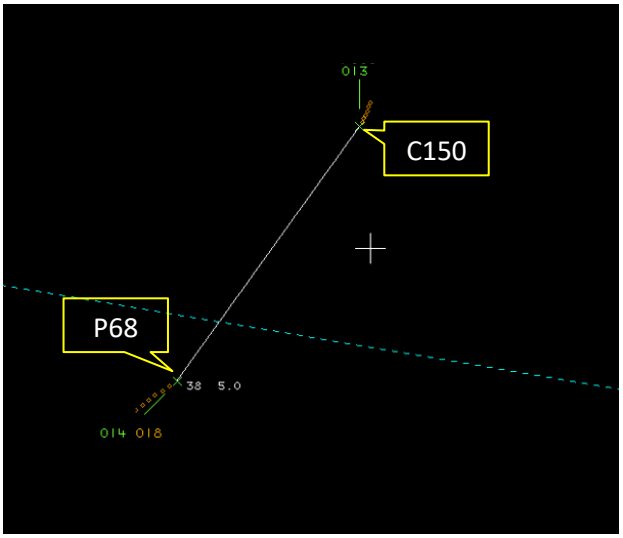

Figure 1

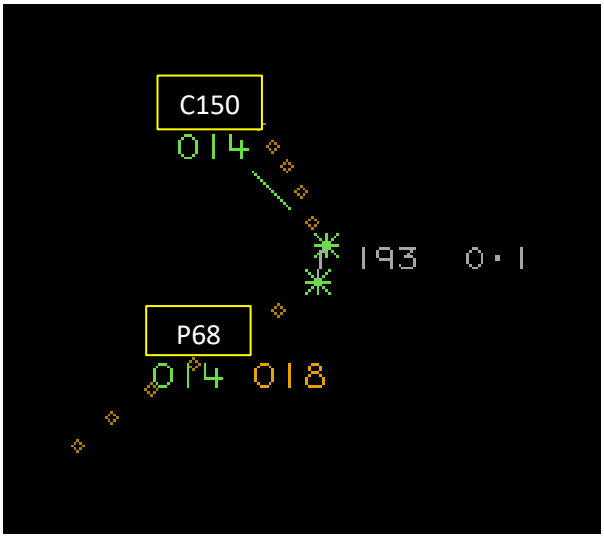

Figure 2 – CPA

Despite Marham ATC being requested to file a DASOR and compile a tape transcript, this was not completed by the unit; therefore, it is impossible to confirm the timeliness and quality of the Traffic Information. However, the P68 pilot did report that Traffic Information was passed and that they were visual throughout. Whilst the operating area may not have been ideal for the C150, the P68 was conducting a task and was in receipt of an ATS. If the C150 pilot had requested an ATS from either Norwich or Marham, they potentially could have been passed Traffic Information which could have aided their awareness prior to their descent into the visual circuit.

UKAB Secretariat

The C150 and P68 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 C150 pilot was required to give way to the P68.[2]

Summary

An Airprox was reported when a C150 and a P68 flew into proximity 1NM N of Fakenham at 1253Z on Wednesday 22nd September 2021. Both pilots were operating under VFR in VMC, the C150 pilot listening-out on the Little Snoring air/ground frequency and the P68 pilot in receipt of a Traffic Service from Marham LARS.

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.

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(2) Converging.

The Board first considered the actions of the C150 pilot and heard from a GA pilot member that overhead joins are recommended at Little Snoring because, amongst other reasons, some aircraft that use the airfield are not equipped with a radio. The Board felt that the advantages of an overhead join (allowing the pilot to gain situational awareness of the circuit and its environs) far outweigh the disadvantages and considered that, on this occasion, an overhead join could have provided more vertical separation from the P68 and may even have provided an opportunity for the C150 pilot to spot the P68 earlier than they did. Furthermore, the Board also wondered why the C150 pilot had taken the trouble to select the Norwich Radar frequency but not requested any kind of ATS from the Norwich controller. Whilst members noted that the C150 pilot had been on the appropriate frequency at the time of the Airprox, given their proximity to the airfield, they felt that an opportunity for the C150 pilot to gain situational awareness of the P68's presence had been missed by them not seeking an ATS (**CF2**) and therefore they had not been aware that the P68 had been operating in the vicinity of Little Snoring (**CF4**). The Board agreed that this had left the C150 pilot relying on their lookout to detect possible conflictions and that, with the C150 pilot concentrating on their arrival at the airfield, they had not seen the P68 in time to take any meaningful action to increase separation (**CF5**).

Turning to the actions of the P68 pilot, the Board was heartened by their decision to seek a surveillance-based ATS from a local LARS provider. The Board agreed that, although the P68 pilot had reportedly received Traffic Information on the C150 from the Marham controller, the P68 pilot had already been visual with the C150 at an early enough stage to allow them to assess the track progression and monitor the situation. The Board wondered if perhaps a NOTAM of the survey activity might have been helpful to other pilots intending to operate in the area, and heard from a pilot member familiar with survey activity that these tasks can often be issued at very short notice and that, although the ability to submit short-notice NOTAMs exists, in practice it can be difficult to achieve the desired effect because there is little time for pilots to take account of the activity in their planning. Additionally, the Board noted that the P68 was not conducted any unusual air activity which might have warranted the issuing of a NOTAM. The Board also noted that survey tasks require undeviating 'lines' to be flown and was sympathetic to the P68 pilot's desire to remain on their survey line and not have to re-commence the line if it could be avoided. However, members wished to remind pilots that (UK) SERA.3210 Right-of-way can only be effective if the pilot required to give way (in this instance, the C150 pilot) knows that the other aircraft is there, and that (UK) SERA.3205 Proximity applies in all instances and that the responsibility for collision avoidance under (UK) SERA.3205 is equally shared. In this regard, the Board considered that the P68 pilot had perhaps become overly task-focused – to the detriment of collision avoidance – and, with the C150 in sight, had not fully exercised their responsibilities under (UK) SERA.3205 (**CF1**) in that they had decided to maintain their survey line (**CF3**) and had subsequently flown into a position of conflict with the C150 (**CF6**).

The Board then briefly discussed the actions of the Marham Director controller and heard from a military ATC advisor that it was disappointing that the unit's actions on notification of the Airprox had not been in accordance with MAA RA 1410 para 26. This had hindered the Board's understanding of the circumstances of the Airprox because, by the time action had been taken at the unit, recordings of the RT were no longer available and the controller's recall of the event had diminished. That said, it appeared to the Board that the Marham controller had acted in accordance with the terms of a Traffic Service by passing Traffic Information on the C150 to the P68 pilot, albeit it seemed that the P68 pilot had already been visual with the C150 at that stage.

Finally, the Board considered the risk involved in this event. Members noted that the C150 pilot had not sighted the P68 until a very late stage – too late for them to have taken any effective action to increase separation. The Board also noted that the P68 pilot had been visual with the C150 for some time and had been monitoring the aircraft's flightpath relative to their own. Some members felt that the fact that the P68 pilot had been visual with the C150 at an early stage had had removed any risk of collision and argued for a Risk Category C (safety degraded but no risk of collision); others felt that the P68 pilot had flown too close to another aircraft and that the separation measured on the NATS radar replay (0ft vertically and <0.1NM horizontally) had not left enough margin for the P68 pilot to react to any changes to the C150's flight parameters, and that safety had thus not been assured and a risk of collision had existed (Risk Category B). After a lengthy discussion, the Board could not unanimously agree on a Risk

Category for this Airprox and so the Chair put it to a vote. By a count of 8 votes to 3, the Board assigned a Risk Category B to this Airprox (**CF7**).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2021194			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
	• 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
3	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
	• Situational Awareness of the Conflicting Aircraft and Action			
4	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
	• See and Avoid			
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
6	Contextual	• Loss of Separation	An event involving a loss of separation between aircraft	Pilot flew into conflict
	• Outcome Events			
7	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: B

Safety Barrier Assessment[3]

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

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the P68 pilot, having sighted the C150, continued to fly their aircraft into such proximity to the C150 as to create a collision hazard.

Tactical Planning and Execution was assessed as **partially effective** because the P68 pilot did not modify their flight path once they had sighted the C150.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C150 pilot did not have any situational awareness regarding the presence of the P68.

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

See and Avoid were assessed as **partially effective** because, although the P68 pilot sighted the C150 at an early stage, they did not take sufficient action to ensure safe separation.