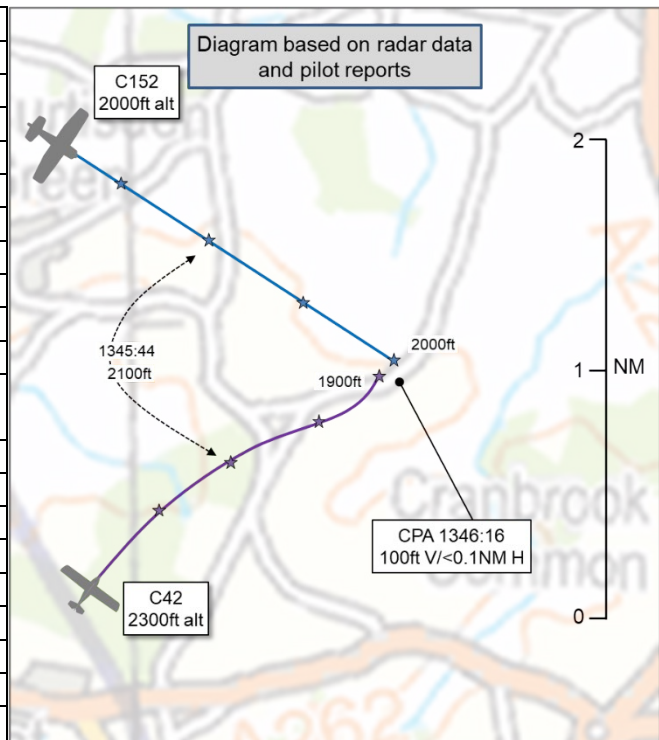


AIRPROX REPORT No 2023199

Date: 28 Aug 2023 Time: 1346Z Position: 5107N 00031E Location: 4NM WSW of Headcorn

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	C42
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	AGCS
Provider	Farnborough East	Headcorn
Altitude/FL	2000ft	1900ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White with Blue and Red stripes	White with a Red tail
Lighting	Beacon	Strobes
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2000ft	1900ft
Altimeter	QNH	QNH
Heading	~125°	030°
Speed	90kt	69kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	100ft V/0.5NM H	50ft V/100m H
Recorded	100ft V/<0.1NM H	



THE C152 PILOT reports that they had been flying a student solo navigation flight from [departure airfield] to [destination airfield]. Shortly after notifying Farnborough LARS East that they had been changing to Lydd approach on 120.705MHz, they noticed an aircraft just behind on their right hand side, no less than 100ft below on a 90° intersecting track. As this occurred exactly when they had been preparing to contact Lydd, they [judged that] they may have failed to notice the aircraft. However, due to the relative flightpath (close and below), they suspect that the aircraft had been hidden from their view by their instrument panel. The pilot also suspects that the other pilot had reacted late as they may have assumed right of way since the levels were close and the other aircraft had been moving right-to-left from the C152 pilot’s perspective. The pilot did not notice the aircraft until it had been behind and there had been no further risk of collision. The C152 pilot states that they had not been sure if the other pilot had seen them at all and taken any avoiding action. If they had not, and had the C152 pilot been only a few hundred meters behind, a collision could have occurred.

The pilot assessed the risk of collision as ‘Medium’.

THE C42 PILOT reports that their flying instructor had sent them on a navigational exercise to complete the final part of their solo hours requirement. The pilot reports that they had completed all of their pre-flight planning, including checking the weather forecast and NOTAMs. The Airprox had happened on the final leg of their route tracking towards Staplehurst to rejoin [destination airfield] for landing. In the approximate area of Colliers Green they had spotted a small Cessna aircraft at their 11 o’clock flying left-to-right slightly below them. The pilot had felt that the aircraft had been flying at sufficient speed such that it would have crossed their path without any action needing to be taken on their part. The C42 pilot notes that they had heard of no other aircraft reported in that area on the radio before or after the Airprox and had continued towards Staplehurst to rejoin [destination airfield] before landing uneventfully and had a debrief with their instructor. They reported that the flight had gone well and a Cessna had

flown close by on the final leg towards Staplehurst, however, they informed their instructor that avoiding action on their part had not been required.

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

THE FARNBOROUGH CONTROLLER reports that they have no recollection of this event as it had not been reported at the time.

THE HEADCORN AGO reports that the C42 had departed for a local flight at 1229 and had landed at 1350. No communication had been made with the C42 pilot apart from the standard departure and rejoin calls. The AGO notes that they had not been aware of any incident and nothing had been said by the pilot.

Factual Background

The weather at Lydd was recorded as follows:

METAR EGMD 281320Z 12006KT 090V150 9999 FEW036 BKN043 21/13 Q1014

Analysis and Investigation

NATS Farnborough

The unit was contacted by the [Airprox Board] regarding an Airprox report they had received. Farnborough LARS had provided a Basic Service to [the C152 pilot], the controller that had provided the service had no recollection of the event as it had not been stated on frequency. At the reported time of the Airprox, Farnborough LARS North and East had been bandboxed with a low hours radar learner and controller under training in low traffic levels.

At 1336 the C152, a student pilot flying a C152 solo [...], checked in on Farnborough LARS East frequency 123.225MHz, south east of the Sevenoaks VRP requesting a Basic Service at an altitude of 2000ft. They had been issued a squawk of 1730 and a Basic Service and advised of the London QNH of 1014hPa.

At 1345:24 the C152 had been approximately 2NM south of Old Hay tracking southeast at 2000ft. Another contact squawking 7000 had been tracking northeast converging with an indicated altitude of 2300ft. The distance between the two aircraft had been 1.49NM.

At 1346:06 the C152 pilot had requested a frequency change to Lydd Approach on 120.705MHz. The unknown aircraft had been continuing on a northeasterly track and the distance between the two aircraft had been 0.37NM and both aircraft indicating 2000ft.

At 1346:10 the minimum distance between the C152 and the unknown aircraft had been 0.12NM and both aircraft indicating 2000ft.

At 1346:16 the learner ATCO acknowledged the C152 pilot's request to leave the frequency [with] '*C152 roger there is traffic in your vicinity same level crossing right-to-left*'.

At 1346:22 the pilot of the C152 replied 'traffic in sight'.

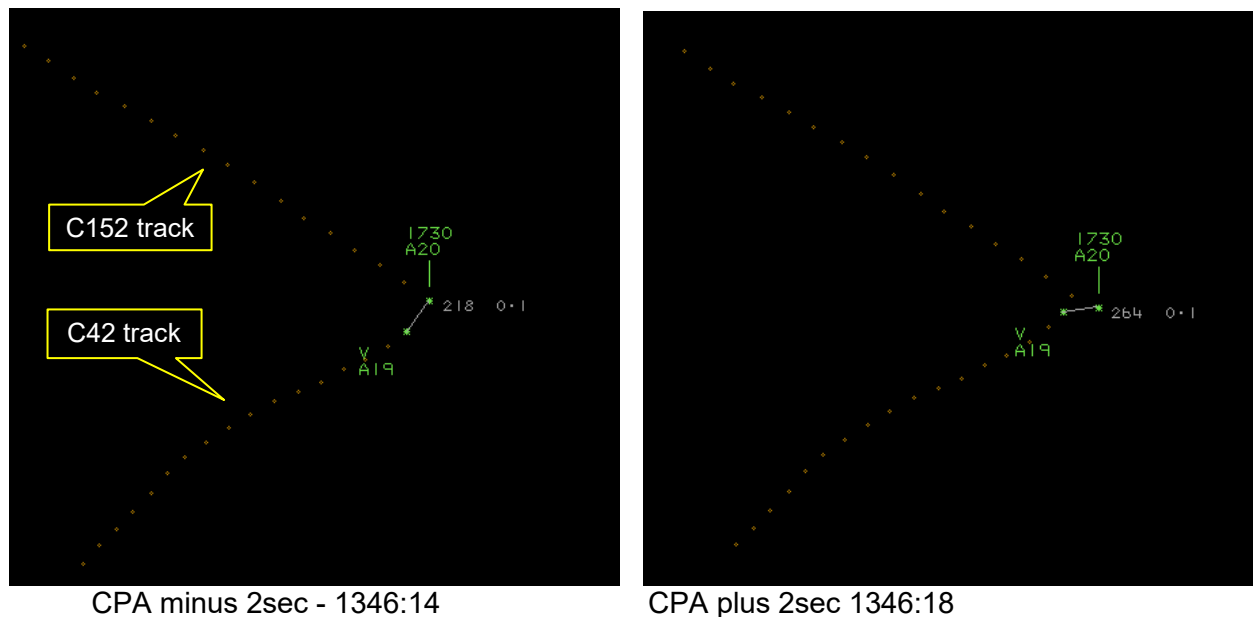
At 1346:22 the C152 pilot had been instructed to squawk conspicuity and free-call Lydd Approach which the C152 pilot readback and left the frequency.

The investigation of this event involved a review of the CA4114, CA4118 and the radar recording. The OJTI that had been mentoring the learner controller under training at the time of the reported Airprox had no recollection of the event. The Airprox had not been reported on frequency.

CAA ATSI

As the Airprox had not been notified immediately to Farnborough, and the controller(s) involved subsequently had no memory of the event, ATSI cannot determine if the trainee controller or their mentor saw the conflict at any time running up to CPA. It has to be assumed that they did not, as it appears their attention had only been drawn to the C152 when the pilot had notified them of their intention to change frequency to Lydd, which was the point that Traffic Information had been passed. Under a Basic Service there is no requirement to continuously monitor an aircraft.

UKAB Secretariat



The C152 and C42 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 C152 pilot was required to give way to the C42.²

Summary

An Airprox was reported when a C152 and a C42 flew into proximity 4NM west-southwest of Headcorn at 1346Z on Monday 28th August 2023. Both pilots were operating under VFR in VMC, the C152 pilot in receipt of a Basic Service from Farnborough LARS and the C42 pilot in receipt of an AGCS from Headcorn.

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.

Members firstly considered the actions of the C152 pilot. Noting the nature of their flight, the weather conditions and the use of a Basic Service from London Information, they opined that operating in this very busy airspace sector demanded a high level of attention, a robust lookout scan and the use of all available aids. They accepted that the Farnborough controller had not been required to monitor the flight of an aircraft in receipt of a Basic Service (**CF1**) and expressed a view that student pilots should be briefed thoroughly on the limitations of such services. They added that, with the exception of the absence of electronic conspicuity (EC) equipment, the pilot had done all they could have in this case

¹ (UK) SERA.3205 Proximity.

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

and acknowledged that the cockpit panelling could have obscured the C42 from the pilot's view, reinforcing the call for a thorough and disciplined lookout scan. The C152 pilot had not been sure that the C42 pilot had seen them and had been concerned by its proximity (**CF3**) as they had seen the C42 only as it had passed behind them and too late to have taken any action to increase separation (**CF4**).

Turning to the C42 pilot, members raised the same views as they had for the C152 pilot, noting that the C42 pilot had visually acquired the C152 in their left 11 o'clock and had judged that it would pass ahead of them. Members felt that the C42 pilot could have turned to increase further that separation to offer greater comfort to the C152 pilot. Members noted that the C42 pilot had been in the process of recovering to their destination and that the AGCS they had been in contact with at that time had been appropriate.

Members noted that both pilots had been students on solo sorties and expressed some disappointment that neither aircraft had been equipped with EC equipment, leading to that barrier had not being present in this event. That, together with the RT services each had been using, meant that neither pilot had had any situational awareness of the presence of the other aircraft (**CF2**).

When determining the risk of the Airprox, the Board considered the reports from both pilots together with reports from the controllers involved. They noted that, although the C42 pilot had seen the C152 and judged that they would pass behind it, the C152 pilot had seen the C42 only at a very late stage and had wished for more separation. In this case, members felt that, although safety had been degraded, there had been no risk of collision and consequently awarded a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2023199			
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				
• Situational Awareness of the Conflicting Aircraft and Action				
2	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				
3	Human Factors	• Lack of Individual Risk Perception	Events involving flight crew not fully appreciating the risk of a particular course of action	Pilot flew close enough to cause concern
4	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots

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:

Ground Elements:

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

Situational Awareness of the Confliction and Action were assessed as **not used** because the Farnborough LARS controller had not been required to monitor the flight of the C152 under a Basic Service.

Flight Elements:

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

See and Avoid were assessed as **partially effective** because the C152 pilot had effectively a non-sighting of the C42 and the C42 pilot, having visually acquired the C152, had flown close enough to cause concern to the C152 pilot.

Airprox Barrier Assessment: 2023199		Outside Controlled Airspace						
Barrier		Provision	Application	Effectiveness Barrier Weighting				
				0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	✔	✔					
	Manning & Equipment	✔	✔					
	Situational Awareness of the Confliction & Action	✔	○					
	Electronic Warning System Operation and Compliance	●	●					
Flight Element	Regulations, Processes, Procedures and Compliance	✔	✔					
	Tactical Planning and Execution	✔	✔					
	Situational Awareness of the Conflicting Aircraft & Action	✘	✔					
	Electronic Warning System Operation and Compliance	●	●					
	See & Avoid	✔	⚠					
Key:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present/Not Assessable</u>	<u>Not Used</u>		
Provision	✔	⦿	✘	●				
Application	✔	⦿	✘	●	○			
Effectiveness								