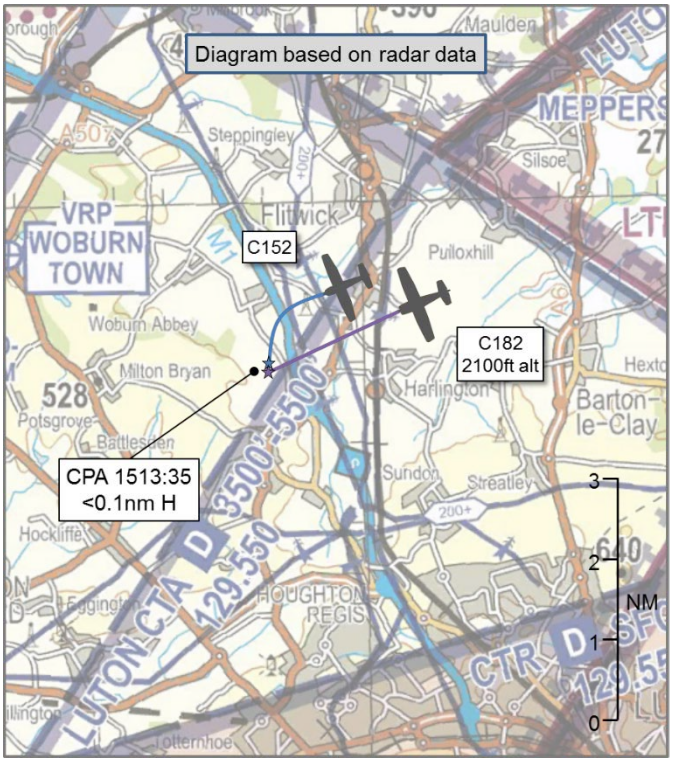
AIRPROX REPORT No 2018014

Date: 19 Jan 2018 Time: 1513Z Position: 5157N 00032W Location: 15nm W Henlow

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	C182
Operator	Civ Trg	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider		Farnborough
Altitude/FL		2100ft
Transponder	A, (C not fitted)	A, C, S
Reported		
Colours	White, Purple	
Lighting	Beacon, Nav	
Conditions	VMC	VMC
Visibility	10km	
Altitude/FL	1800ft	~2500ft
Altimeter	QNH (1007hPa)	NK
Heading	250°	270°
Speed	90kt	120kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	<50ft V/50-80m H	400ft V/1nm H
Recorded	<0.1nm H	



THE C152 PILOT reports that he was flying with a student. Different weather conditions from those forecast meant that the student was modifying their plan and, although they had switched to the Luton frequency, they had not yet called the controller for a service. They were flying at 1800ft when a C182 passed them on the port side; it was close enough to see the registration clearly. Its track seemed to parallel their own, although once past the flight paths seemed to converge slowly and it was directly ahead 1 min later. By the time they had contacted Luton, the other aircraft was out of sight and, because the controller was very busy, he didn't report the Airprox on the frequency. He noted that it was possible that the other pilot was visual with them from behind and might not have thought there was a risk of collision, but that given the low-sun and poor visibility looking west, and the fact that it passed so close to their left, he thought it probable that the other pilot was not visual.

He assessed the risk of collision as 'Medium'.

THE C182 PILOT reports he was flying the C182 back to his home airfield after a 6-monthly service. Flying on a westerly heading, into sun and in hazy conditions, he was receiving a Basic Service from Farnborough; he would usually only ask for a Traffic Service if he thought Farnborough weren't busy and could provide one. He didn't know anything about the incident until he was informed some days later. He remembered seeing a C150 in his left, 7 o'clock about 1nm away and about 400ft below. It wasn't on a conflicting heading so he didn't need to take avoiding action.

He assessed the risk of collision as 'None'.

THE FARNBOROUGH CONTROLLER reports that he was providing a Basic Service to the C182 pilot, but has no recollection of the incident.

Factual Background

The weather at Luton was recorded as follows:

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EGGW 191520Z AUTO 24010KT 9999 NCD 05/M00 Q1007=
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Analysis and Investigation

CAA ATSI

The C152 pilot was listening out on the Luton approach frequency but had made no radio contact with the controller.

At 1508:55 the C182 pilot contacted the Farnborough LARS North controller and requested a Basic Service. The service was agreed between the pilot and controller at 1509:22, and the controller provided the London QNH and issued a transponder code of 5021. The transponder code was first visible on radar at 1509:39 (Figure 1).

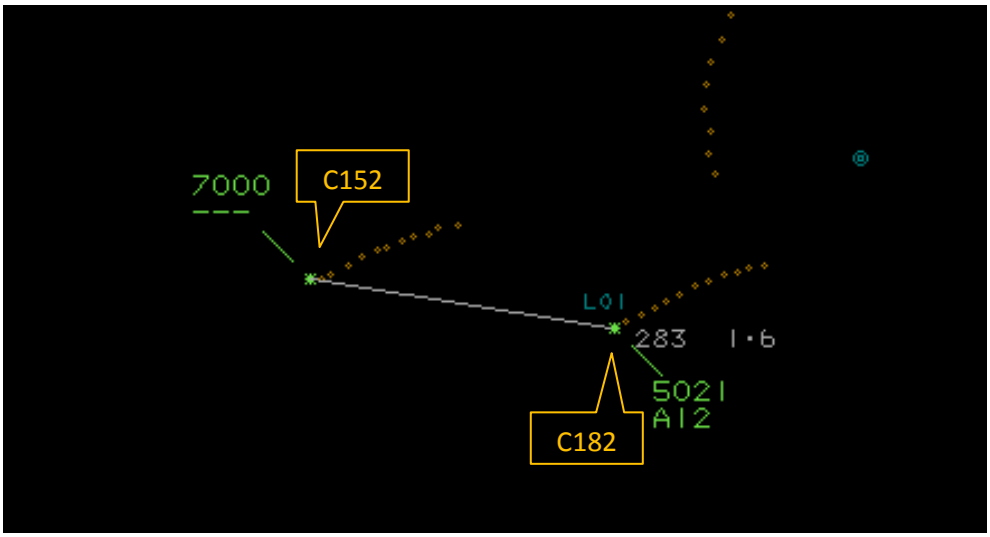

Figure 1 – 1509:39

Both aircraft flew converging headings, with the C182 catching up slightly with the C152 by 1512:32 (Figure 2).

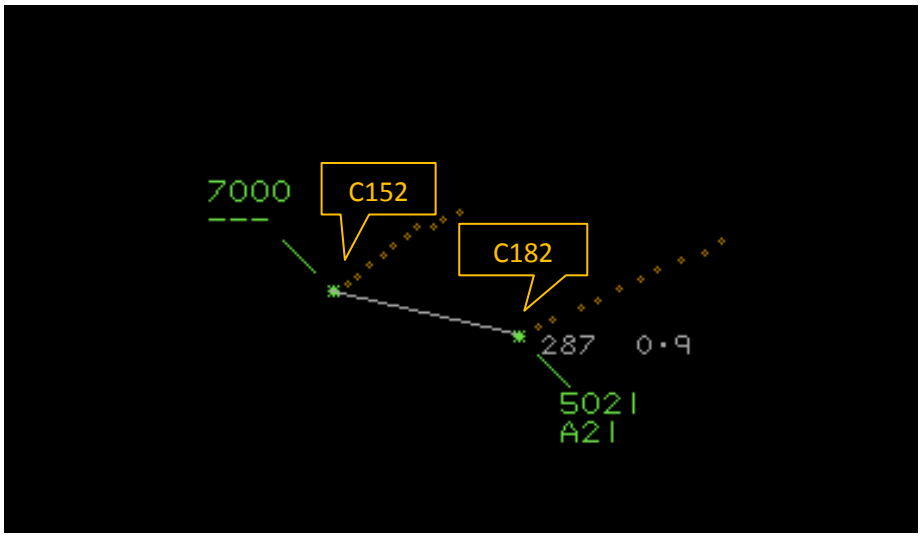

Figure 2 – 1512:32

At 1513:11 (Figure 3), the C152 turned left towards the track of the C182. At this point the Farnborough LARS North controller was giving Traffic Information to another aircraft.

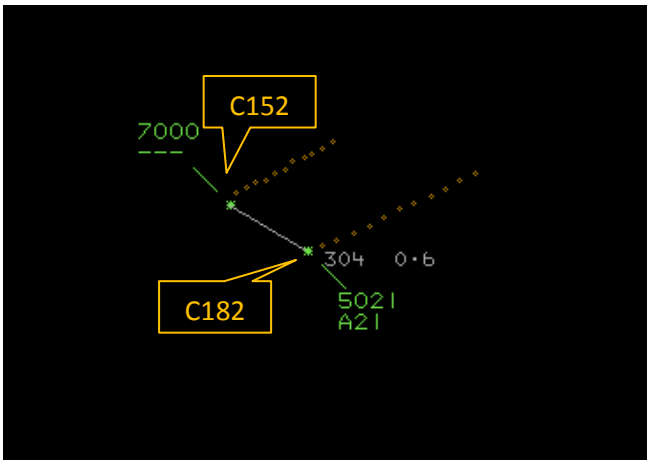

Figure 3 – 1513:11

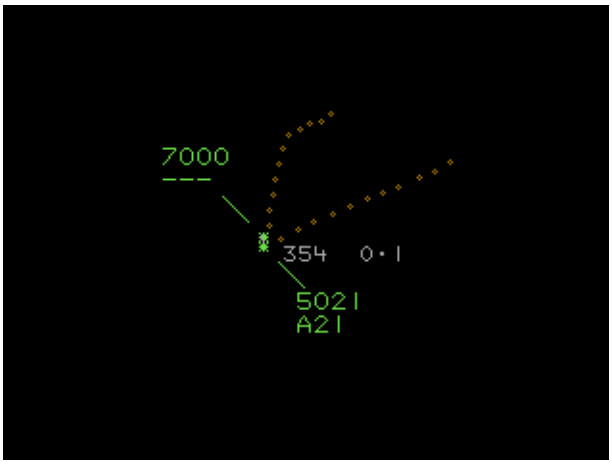

Figure 4 – 1513:35

CPA as seen on the radar, occurred at 1513:35 (Figure 4) with separation of 0.1nm between the two aircraft.

At the time of the Airprox both aircraft were operating in Class G airspace. The C152 was receiving no service and the C182 was under a Basic Service. No Traffic Information was given. Under the terms of a Basic Service, whether Traffic Information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller.

UKAB Secretariat

The C152 and C182 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 C182 pilot was required to give way to the C152[2].

Summary

An Airprox was reported when a C152 and a C182 flew into proximity at 1513hrs on Friday 19th January 2018. Both pilots were operating under VFR in VMC, the C152 pilot was not in receipt of an ATS and the C182 pilot was in receipt of a Basic Service from Farnborough.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings and reports from the air traffic controllers involved.

The Board first looked at the actions of the C152 pilot. They noted that he had reported his student needing to modify his plan due to the weather, and wondered whether this had led to distraction by in-cockpit tasks to the detriment of look-out, although it was noted that the poor visibility would have also had a bearing on their ability to see the other aircraft. The C182 was slightly behind him and slowly catching him up as he transited westbound, and despite the restricted view from a C152 when looking behind, GA members commented that the C182 was there to be seen during any clearing look-out prior to the C152 pilot's left turn when they were separated abeam by 0.6nm (Figure 3). That being said, it was acknowledged that the C182 may have been obscured by the C152 wing, especially to the instructor who would presumably be in the right-hand seat, if the C182 had been above the C152's level.

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

For his part, the C182 was behind the C152 and slowly catching it up until abeam. As for the C152 pilot, the other aircraft was there to be seen for about 4mins before they crossed, but easier for the C182 pilot to see the C152 because it was initially in his front-right quadrant. The Board noted that the C182 pilot only reported seeing the C152 in his 7 o'clock presumably after they had crossed. The Board concluded that he hadn't seen the C152 until after it had passed and that it would likely have been blanked by his aircraft's wing in the latter stages of the approach if the C152 had been above.

The Board noted that the time of day in January meant that the sun was low in the sky and that both aircraft were flying into sun when travelling westbound, which would have made look-out difficult. Nevertheless both were there to be seen, and that they weren't demonstrates the importance of robust look-out. Members commented that the C182 pilot was receiving a Basic Service from Farnborough, whilst the C152 was on the Luton frequency; therefore, neither pilot could gain situational awareness from hearing the other on the frequency. Under a Basic Service the Farnborough controller was not required to pass Traffic information and, noting the C182 pilot's comments about only asking for a Traffic Service when the controller didn't seem busy, the Board urged pilots to ask for the service they required rather than to second-guess the agency's ability to deliver; Farnborough would refuse the service if they weren't able to provide it.

The Board also noted that neither aircraft had any form of CWS; if they had, even though the C152 wasn't equipped with Mode C, a CWS could have provided the pilots with useful situational awareness before the encounter got as close as it subsequently did. Members commented that there were an increasing number of affordable CWS systems available that would be well worth considering as a safety investment.

In determining the cause of the Airprox, the Board quickly agreed that it had been a late sighting by the C152 pilot and, because he hadn't seen the C152 until it was in his 7 o'clock, a non-sighting by the C182 pilot. The Board thought that it had been largely down to providence that the two aircraft had any height separation, and noted that neither pilot had seen the other aircraft in time to take any effective avoiding action. Accordingly, they assessed the risk as Category A, separation had been reduced to the bare minimum and there had been a serious risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the C152 pilot and a non-sighting by the C182 pilot.

Degree of Risk: A.

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:

ANSP:

Situational Awareness and Action were assessed as **not used** because in providing a Basic Service the Farnborough controller was not required to give Traffic Information.

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because neither pilot had any knowledge that the other was in the area.

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

Warning System Operation and Compliance were assessed as **not present** because neither aircraft was fitted with a CWS.

See and Avoid were assessed as **ineffective** because neither pilot saw the other in time to take any avoiding action.