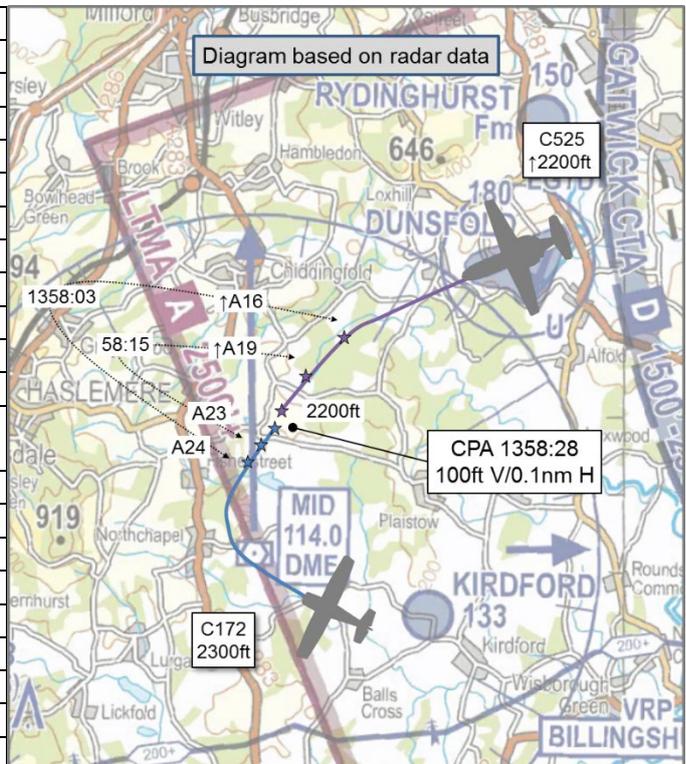


AIRPROX REPORT No 2018066

Date: 03 May 2018 Time: 1358Z Position: 5104N 00036W Location: 3.5nm SW Dunsfold

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	C525
Operator	Civ Pte	Civ Exec
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic ¹
Provider	Farnborough	Farnborough
Altitude/FL	2300ft	2200ft
Transponder	A, C	A, C, S
Reported		
Colours	White, Blue	White, Blue
Lighting	Strobes, Nav, LED landing	Strobes, Nav, Beacon
Conditions	VMC	VMC
Visibility	>20km	>10km
Altitude/FL	2300ft	2000ft
Altimeter	QNH (1019hPa)	QNH (1019hPa)
Heading	024°	260°
Speed	110kt	160kt
ACAS/TAS	Not fitted	TCAS I
Alert	N/A	TA
Separation		
Reported	10ft V/300-400ft H	100ft V/700- 1000m H
Recorded	100ft V/<0.1nm H	



THE C172 PILOT reports that he was routing to Fair Oaks and turned at MID for OCK at 2300ft. When in the vicinity of Godalming, he made visual contact with an on-coming jet, slightly to his left and at a similar altitude. He disconnected the auto-pilot and instigated a hard turn to the right. The opposing aircraft did not appear to take any avoiding action and passed to the left a few feet below. No relevant Traffic Information was received from ATC.

He assessed the risk of collision as 'Medium'.

THE C525 PILOT reports that in his opinion this was a low-risk Airprox, but that he reported it to allow learning and better co-ordination between controllers and pilots departing from Dunsfold. He was receiving a radar service (he believed) from a radar controller and the other aircraft was on the Farnborough LARS frequency. On climb-out from the non-controlled airport of Dunsfold, he called on the Farnborough frequency which gave the controller very little time to inform him about the traffic on LARS. He saw the other aircraft after a TCAS TA and turned right slightly, he wasn't sure whether the other pilot had seen him. After landing he spoke to the radar controller about the incident.

He assessed the risk of collision as 'Low'.

THE FARNBOROUGH LARS WEST CONTROLLER reports that he received a telephone call about the Airprox two days after the event, nothing had been mentioned on the frequency at the time, consequently he could not remember any details.

¹ In the process of agreeing a service.

THE FARNBOROUGH APPROACH CONTROLLER reports that he released the C525 towards Midhurst and, having been released, it came into close proximity to an aircraft wearing a 0451 squawk. He couldn't remember whether he passed generic Traffic Information or not. The C525 was on a Basic Service as it approached GWC, the controller had spoken to London and agreed to put the C525 on track to GWC at 3000ft against inbound traffic descending to 4000ft. After the incident the pilot asked whether the traffic had been with Farnborough, and when the controller confirmed that it was, he reported that he would be filing an Airprox.

Factual Background

The weather at Farnborough was recorded as follows:

METAR EGLF 031320Z 26007KT 230V310 9999 SCT046 14/04 Q1020=

Analysis and Investigation

CAA ATSI

At 1339:27, the C172 pilot established communications with the Farnborough LARS West controller. The pilot reported they were overhead Seaford at 4000ft descending to 2300ft and requested a Basic Service. At 1339:48, the Farnborough LARS West controller passed the QNH and issued a transponder code of 0451. The pilot readback was correct and a Basic Service was agreed.

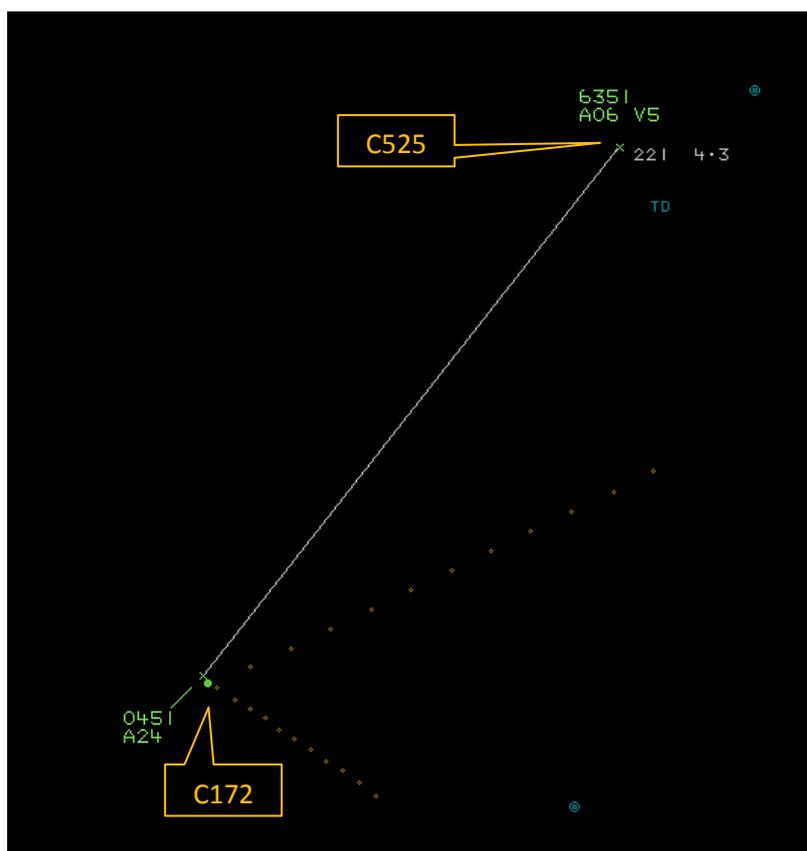


Figure 1 – 1357:34

The C525 was first visible on radar at 1357:34 (Figure 1), and the C525 pilot established communications with Farnborough Radar at 1357:45. The controller instructed the pilot to squawk code ident, passed the QNH 1019hPa, and asked what type of service was required outside of controlled airspace. The pilot read back the QNH correctly and requested a Basic Service.

At 1358:05, the Farnborough Radar controller identified the C525 and requested the aircraft's passing level. The controller then passed Traffic Information on the C172 advising it was manoeuvring to the south west, 700ft above (Figure 2). The pilot reported that they had the C172 on TCAS and they were passing 1900ft to level at 2300ft. The controller asked if they were routing to Goodwood.

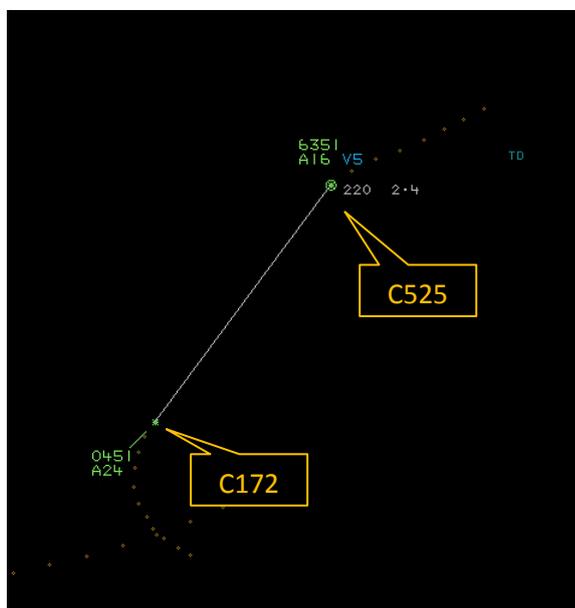


Figure 2 - 1358:05

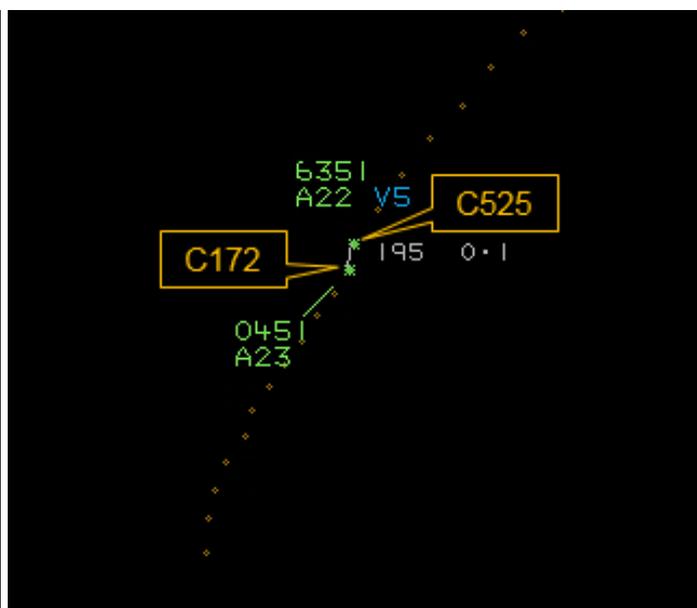


Figure 3 – 1358:30

CPA occurred at 1358:30 (Figure 3) and the radar indicated that the aircraft were separated by 0.1nm and 100ft.

At 1358:32, the C525 pilot asked the Farnborough Radar controller to standby which the controller acknowledged. At 1358:41 the C525 pilot stated they could either route to Goodwood or Midhurst but their initial routing was via Bognor.

At 1359:00, the Farnborough Radar controller asked the C525 pilot to confirm their level. The pilot stated they were returning to the profile as they had just had to avoid the traffic. A Basic Service was agreed and the controller passed some further Traffic Information. At 1359:13, the Farnborough Radar controller instructed the C525 to climb to altitude 3000ft which was acknowledged.

At 1359:48, the C525 pilot asked if the C172 was talking to Farnborough. The controller confirmed it was talking to Farnborough LARS West and the pilot stated they would be filing an Airprox report.

At the time of the Airprox, the C172 was receiving a Basic Service from Farnborough LARS West. The C525 was not yet in receipt of a service from Farnborough Radar. No Traffic Information was passed to the C172 pilot. The C525 pilot did receive Traffic Information on the C172, but did not report visual with the traffic.

Under the terms of a Basic Service CAP 774 states;

If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot.

Whether traffic information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller.

The Airprox took place in class G airspace therefore separation between aircraft is the responsibility of the pilot.

UKAB Secretariat

The C172 and C525 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard². If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right³.

Summary

An Airprox was reported when a C172 and a C525 flew into proximity near Denham at 1358hrs on Thursday 3rd May 2018. Both pilots were operating under VFR in VMC, the C172 pilot in receipt of a Basic Service from Farnborough and the C525 pilot in the process of establishing a Basic Service with 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, reports from the air traffic controllers involved and reports from the appropriate ATC operating authorities.

The Board first looked at the actions of the C172 pilot. He was receiving a Basic Service from Farnborough. Under the terms of a Basic Service, Farnborough were not required to maintain track ident on the C172 and were not required to provide Traffic Information unless they happened to see a conflict situation. Members commented that if the C172 pilot wanted such information then he would have been better served in asking for Traffic Service, and a discussion then followed about whether pilots in general really understood the differences between a Basic Service (where Traffic Information would not routinely be passed), and a Traffic Service (where, subject to controller workload, it would). Notwithstanding, members agreed that the C172 pilot was obviously keeping a good look-out and it appeared that this had paid off because he was able to see the C525 and take avoiding action.

Turning to the C525 pilot's actions, members noted that he was climbing out of Dunsfold, which had no ATC facilities. He had called Farnborough and had also requested a Basic Service. However, notwithstanding that he was not required to pass Traffic information, the Farnborough controller did pass Traffic Information on the C172 to the C525 pilot approximately 25 seconds before CPA. In addition, the C525 pilot received a TCAS TA. The Board wondered why, having had the information from two different sources, the pilot continued to climb towards the C172. Acknowledging that he was likely busy reconfiguring his aircraft after take-off and also probably attempting to make a joining clearance and may not have wanted to stop his climb, some members thought he should have at least altered his heading until clear of the C172.

The Board then examined the actions of the two Farnborough controllers. Firstly, the Board thought it disappointing that although the App controller knew that an Airprox had been reported, the LARS controller was not told for two days, by which time he had forgotten any pertinent information. Nevertheless, the NATS advisor was able to explain that the LARS controller was extremely busy at the time, with near constant RT calls and that with such a volume of traffic an aircraft on a Basic Service would be a low priority and probably not monitored. Furthermore, he explained that although the App controller would have received a prenote on the aircraft departing Dunsfold, it was notoriously difficult to judge the timing of departure because there was no ATC at Dunsfold and sometimes the call came from the pilots themselves, meaning that the information could be given anything up to 15 mins or more before the aircraft got airborne. This meant that meaningful co-ordination could not take place. Some GA members pointed out that they were often restricted in height for Farnborough departures and wondered whether the same could be done for Dunsfold; however, they were informed that the difference was the ability to know exactly when the Farnborough departures were happening through controller-to-controller landline communication, rather than the uncertainty of the Dunsfold departures. Nevertheless, controller members commented that it was disappointing that two aircraft, both wearing

² SERA.3205 Proximity.

³ SERA.3210 Right-of-way (c)(1) Approaching head-on.

Farnborough squawks, came so close to each other without any Traffic Information being passed between the controllers. That being said, ultimately both pilots were receiving a Basic Service and, as such, Farnborough ATC were not required to separate them. The Board thought that this was a salient lesson for pilots to consider carefully the type of service that they really required.

In determining the cause of the Airprox, the Board agreed that the incident was best described as a conflict in Class G, resolved by both pilots taking avoiding action. Notwithstanding, in assessing the risk, they considered that because the avoiding action had been taken last minute, the associated reduced separation that had been achieved in this head-on situation meant that safety had been much reduced below the norm; risk Category B.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by both pilots.

Degree of Risk: B.

Safety Barrier Assessment⁴

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

ANSP:

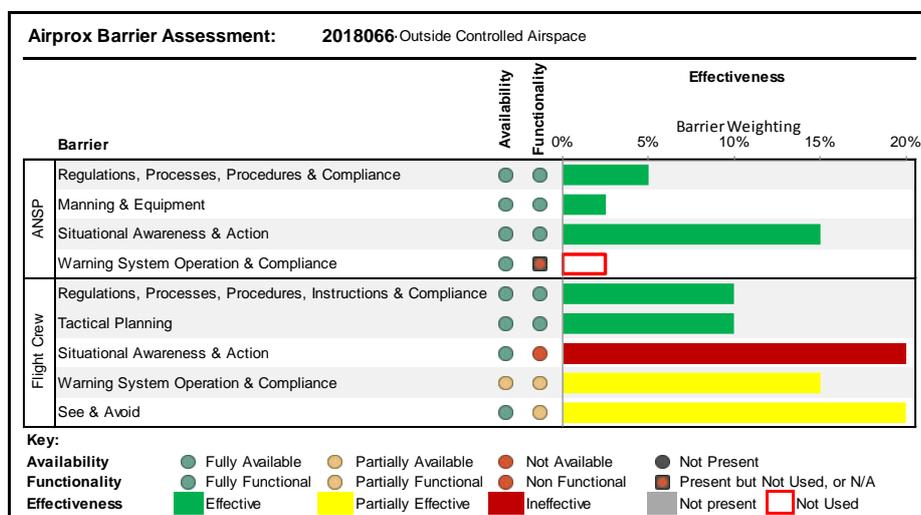
Warning System Operation and Compliance were assessed as **not used**, Farnborough were equipped with warning systems but they were not usable in the Class G environment due to numerous alarms and alerts being generated in normal operations.

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because the C525 pilot had Traffic Information but didn't act upon it, and the C172 did not have any information about the C525.

Warning System Operation and Compliance were assessed as **partially effective** because despite receiving a TA, the C525 pilot did not fully act upon it.

See and Avoid were assessed as **partially effective** because both pilots took last-minute avoiding action.



⁴ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).