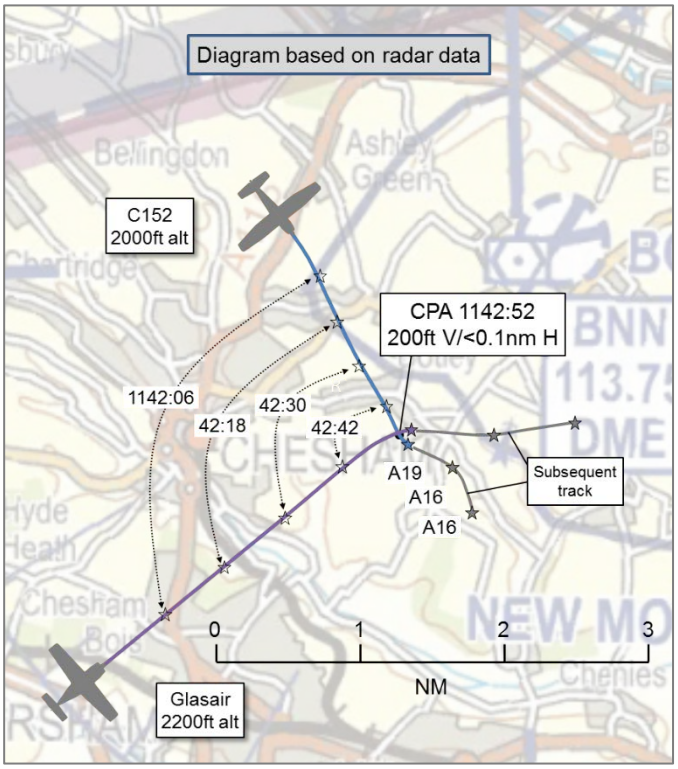
AIRPROX REPORT No 2017237

Date: 03 Oct 2017 Time: 1143Z Position: 5142N 00034W Location: 1.5nm SW Bovingdon VOR

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	Glasair
Operator	Civ Trg	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	AGCS	Basic
Provider	Denham	Farnborough
Altitude/FL	2000ft	2200ft
Transponder	A, C, S	A, C, S
Reported		Not reported
Colours	Red, white, blue	
Lighting	Beacon	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	2100ft	
Altimeter	QNH (1023hPa)	
Heading	165°	
Speed	85kt	
ACAS/TAS	Not fitted	
Separation		
Reported	20ft V/7m H	NK
Recorded	200ft V/<0.1nm H	



THE C152 PILOT reports instructing a navigation sortie, on recovery to Denham, when he saw a white, low-wing, single-engine aircraft on the right, in a shallow descent, at a range of 20-30ft. He immediately took control and made a steep descending left turn.

He assessed the risk of collision as 'High'.

THE GLASAIR PILOT: Other than confirming that he was 'operating the aircraft and saw nothing of note', the Glasair pilot declined to take part in the Airprox process.

THE FARNBOROUGH LARS(N) CONTROLLER reports that the Glasair pilot was in receipt of a Basic Service but that he did not recall an Airprox being notified on frequency and had no recollection of the event.

Factual Background

The weather at Northolt was recorded as follows:

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METAR EGWU 031150Z 33011KT 9999 SCT038 15/06 Q1024 BLU NOSIG=
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Analysis and Investigation

Military ATM

An Airprox occurred on 3 Oct 17 at approximately 1145hrs UTC, in the vicinity of the BNN VOR, between a C152 and a Glasair. The C152 pilot had recently left the Brize LARS frequency, where he had been in receipt of a Basic Service (BS), and the Glasair's SSR code indicates that it's pilot

was under control of Farnborough LARS. Radar replays using NATS radars showed the C152 change from a Brize Norton SSR code to 7000 at 11:41:44 (Figure 1).

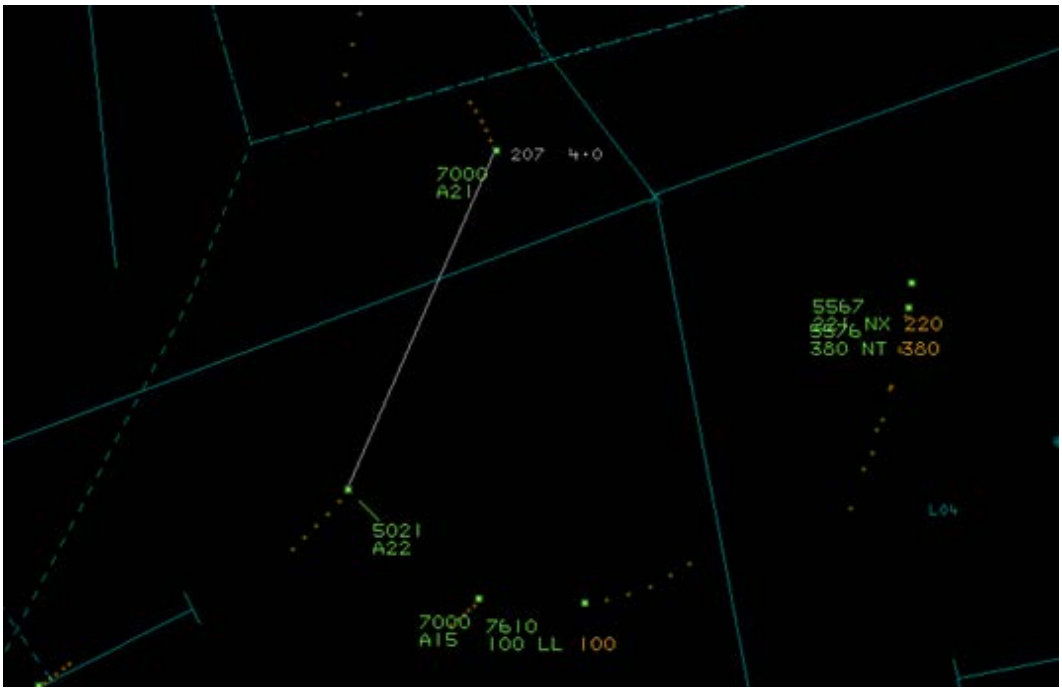


Figure 1: Geometry at 11:41:44

At 11:42:51 (Figure 2), the C152 and Glasair passed at their closest point.

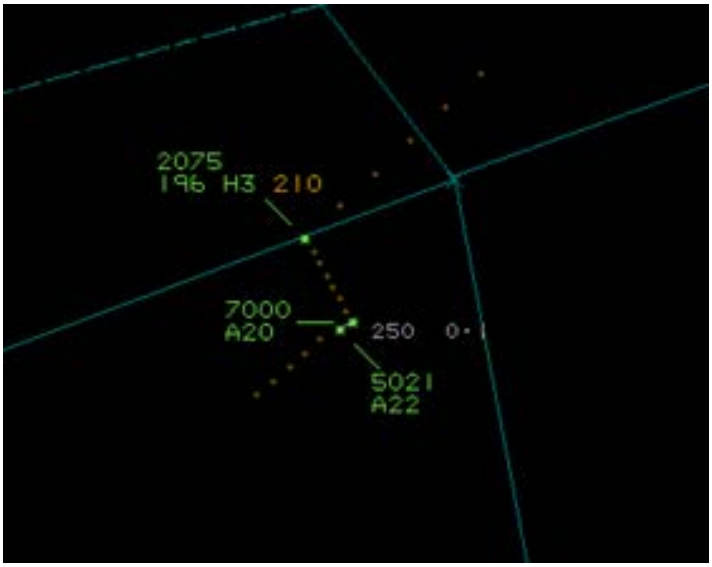


Figure 2: Geometry at 11:42:52

Although the exact time that the C152 pilot left the Brize LARS frequency is not known, the C152 pilot changed from a Brize LARS SSR code to 7000 with 4nm separation from the Glasair. Under a BS, there was no requirement for the Brize LARS Controller to pass Traffic Information to the C152 pilot in this situation and, due to the combination of the aircraft's range from Brize and its altitude, it is unlikely to have been visible on the Controller's radar screen at the time.

UKAB Secretariat

The incident geometry was converging and the C152 pilot was required to give way to the Glasair[1], although *both* pilots shared an *equal* responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[2]. It was established from radar replay that the Glasair pilot turned right at CPA and then left on to a heading of about 080°.

Summary

An Airprox was reported when a C152 and a Glasair flew into proximity at 1143hrs on Tuesday 3rd October 2017. Both pilots were operating under VFR in VMC, the C152 pilot in receipt of an A/G Service from Denham and the Glasair pilot in receipt of a Basic Service from Farnborough LARS North.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the C152 pilot and only a statement from the Glasair pilot, radar photographs/video recordings, a report from the air traffic controller involved and a report from the appropriate ATC authority.

The Board started their discussion of the Airprox by expressing their disappointment that the Glasair pilot had elected not to engage with the Airprox process. Members acknowledged that participation was not mandatory but pointed out that every pilot has improved their knowledge by learning from the actions of others, thereby improving safety overall. It was only through the selfless and altruistic participation of others that the pool of knowledge and experience, from which every pilot has benefitted, could be refreshed.

The C152 pilot had been in receipt of a Basic Service from Brize LARS until shortly before the Airprox. The Military ATC advisor noted that the C152 pilot had switched to the Denham frequency about 1min before CPA, that he was in receipt of a Basic Service only and that the Airprox most likely occurred below the base of Brize radar cover. Under these conditions it would be most unlikely that the C152 pilot would receive Traffic Information on the Glasair and, in the event, he did not. The Board commended the Brize Norton controller and military ATC authority on the thoroughness of their reporting and investigation, involving a pilot no longer on the Brize frequency.

The Glasair pilot was in receipt of a Basic Service from Farnborough LARS(N), although the controller could not recollect the incident and therefore had likely not detected the aircrafts' converging tracks. The Board noted that the Glasair pilot stated that he 'saw nothing of note', although the radar replay shows that he turned sharply right at CPA and then turned back towards his original course. Although this may have been coincidental, some members wondered whether this had been in response to Glasair pilot seeing the C152 well before CPA and making a course correction to which he did not attach any importance in reporting terms. Taking the Glasair pilot's statement at face value, all the Board could do was to note that it seemed he made a navigational turn precisely at the moment of CPA but that he may have over-turned slightly and had had to correct back to course. Regrettably, without the Glasair pilot's perspective, it was not possible fully to ascertain events leading up to CPA. Consequently, the Board agreed that the cause was best described as a late sighting by the C152 pilot and a non-sighting by the Glasair pilot.

Turning to the risk, both the radar replay and the C152 pilot's report indicated that the aircraft had come into very close proximity indeed, especially if neither pilot saw the other aircraft until CPA. Some members thought that the incident warranted a risk rating of A, collision averted by providence, but, after further discussion, it was agreed that vertical separation was such that the incident warranted a risk rating of B, safety much reduced below the norm.

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

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

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

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:

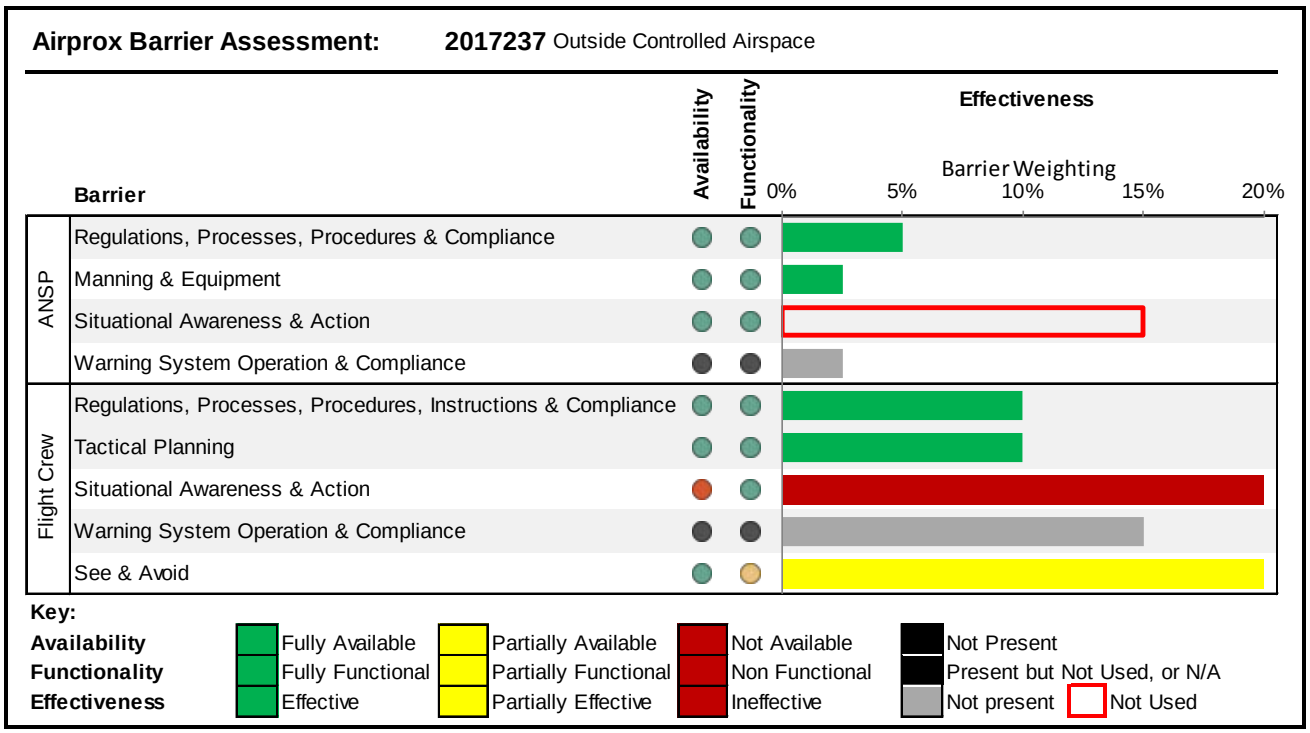
ANSP:

Situational Awareness and Action were assessed as **not used** because the Farnborough LARS(N) controller was not required to monitor the Glasair under a Basic Service.

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because at least one pilot (and probably both it seemed) was not aware of the presence of the other aircraft, which resulted in a low degree of separation at CPA.

See and Avoid were assessed as **partially effective** because the C152 pilot was able to take emergency avoiding action.



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