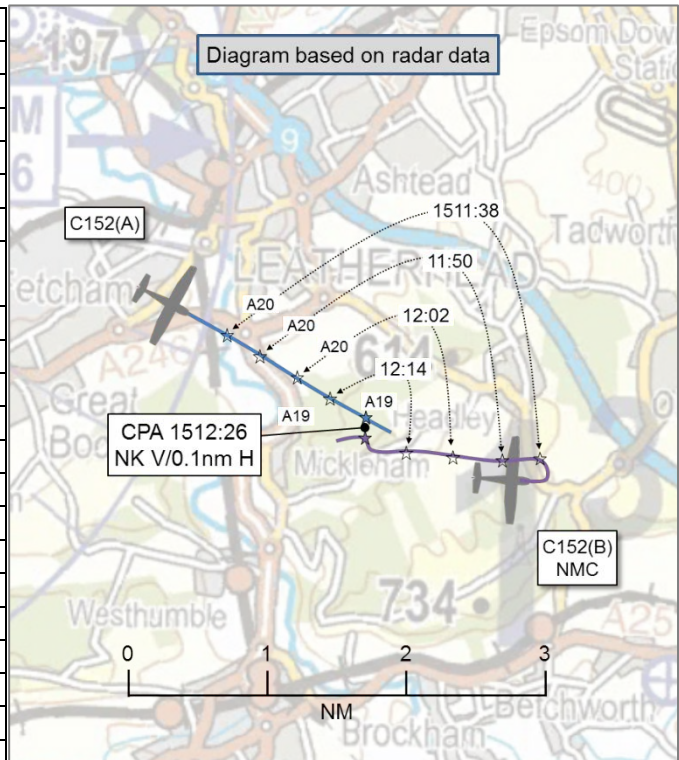


AIRPROX REPORT No 2019055

Date: 10 Apr 2019 Time: 1513Z Position: 5116N 00018W Location: Leatherhead

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152(A)	C152(B)
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	NK
Provider	Farnborough LARS	NK
Altitude/FL	1900ft	NK
Transponder	A, C	A only
Reported		Not reported
Colours	White, red	
Lighting	NK	
Conditions	NK	
Visibility	NK	
Altitude/FL	2100ft	
Altimeter	QNH (1019hPa)	
Heading	~135°	
Speed	90kt	
ACAS/TAS	Not fitted	
Alert	N/A	
Separation		
Reported	<100ft V/ <100m H	Not reported
Recorded	NK V/0.1nm H	



THE C152(A) PILOT reports that the C152(B) was seen far away orbiting. Then they were on a course for a head collision at the same altitude so, in accordance with the rules of the air, he made a right hand turn by about 30°. At that stage the aircraft was far away. He also flashed his landing light at the aircraft to make himself seen. The other aircraft carried out a few more turns but only by a few degrees each time. The C152(A) pilot carried on altering his heading to try and track behind the aircraft but this was difficult as the aircraft was moving randomly and in a very unpredictable pattern. The other aircraft was then just a few feet below him to his right. They were separated laterally by a safe amount. The other aircraft then made a high angle of bank turn away from him and then, during this turn, switched directions and flew straight underneath him whilst in about 90° angle of bank. The C152(A) pilot immediately reported what had happened. He was visual with what he believed was a Cessna 152 Aerobat. The C152(A) pilot stated that this incident was no fault of ATC. They could not have warned him due to the unpredictable nature of the other aircraft's flight path. He stated that the other aircraft was flying recklessly, aggressively and with no consideration whatsoever of other traffic. It was also performing what he would call aerobatic manoeuvres as it was being aggressively thrown around with no look out. This aircraft performed a lot of turns in a very short space of time of which all had excessive angles of bank. Through observation he would approximate these to be between 75° to 90° angle of bank. In his opinion, the aircraft was moving very suddenly and aggressively.

The C152(A) pilot did not make an assessment of the risk of collision.

THE C152(B) PILOT was contacted by the Airprox Board Secretariat and a local Senior Examiner but did not respond to requests to complete an Airprox reporting form.

THE FARNBOROUGH CONTROLLER reports that he had just accepted handover from the outgoing controller when the first call he received was from the pilot of C152(A) reporting that he had 'just had

someone doing 90° turns right underneath, it's ridiculous'. The controller queried the call as he quickly scanned his Flight Progress Strips, found the details and then observed the aircraft about 5nm east-southeast of OCK. The pilot then stated again they had just had 'a Cessna 152 just doing 90° turns 100ft below them' and that 'it was ridiculous'. The controller passed Traffic Information on two other contacts in the vicinity and checked to see what service the aircraft was on, which he confirmed was a Basic Service. Having not detected the conflict during the handover, no Traffic Information had been provided and he asked if the pilot was filing an Airprox. The pilot advised they would, so the controller confirmed he would file on the incident and suggested the pilot also do so on the ground.

Factual Background

The weather at Gatwick was recorded as follows:

METAR EGKK 171520Z 15006KT 110V200 6000 FEW034 SCT039 17/09 Q1018=

Analysis and Investigation

UKAB Secretariat

Both C152 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right². When the aircraft carries serviceable Mode C equipment, the pilot shall continuously operate this mode unless otherwise dictated by ATC³.

The C152(B) was wearing a squawk which indicated that the pilot was not in communication with an ATSU that could provide a surveillance based FIS.

Summary

An Airprox was reported when 2 C152s flew into proximity near Ockham at 1513Z on Wednesday 10th April 2019. Both pilots were operating under VFR in VMC, the C152(A) pilot in receipt of a Basic Service from Farnborough LARS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the air traffic controller involved. 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.

Board members first discussed each pilot's actions. In the absence of a report from the C152(B) pilot, the Board surmised from the C152(A) pilot's report, the radar replay, and the fact that C152(B) was a C152 Aerobat operated by an ATO, that he was conducting general handling and aerobatics. Members could see no concern in flying a C152 Aerobat in the way it was designed to be flown and could only express their disappointment that the C152(B) pilot had decided to withhold his narrative of events. In the absence of his report, the Board speculated that the C152(B)'s transponder may not have been selected correctly (**CF2**) and reminded pilots that, under SERA.13001, selection of all available modes was not optional.

For his part, the C152(A) pilot reported observing the C152(B) 'far away' and that he made significant turns in an attempt to deconflict from it. These turns were not apparent on the radar replay, and members wondered therefore why he had continued towards the other aircraft, especially in the latter

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

³ SERA.13010 Pressure-altitude-derived information.

stages of the encounter. Given that he could not be sure that the C152(B) pilot had seen him, and with airspace to either side, above and below should he have wished to use it, members felt that the C152(A) pilot had had the opportunity to do more to alleviate the situation and alter his planned track (**CF1**). This was not to say that the C152(A) pilot should have done so, but rather to point out that he could have done so should he have chosen to.

The Board noted that neither pilot was in receipt of a FIS that could have provided Traffic Information on other aircraft and, as such, had no SA on the other (**CF3**). Ultimately, they converged to a lateral separation of 0.1nm (radar replay) and <100ft (C152(A) report), and the Board surmised that that was at least in part because the C152(B) pilot probably did not see C152(A) until at a late stage. Members noted that an effective and robust lookout was fundamental for flight in Class G airspace and that this responsibility was especially important when conducting aerobatics or highly dynamic manoeuvres.

The Board felt that, ultimately, the aircraft had converged because the C152(A) pilot did not take wholly effective action when he was in a position to do so; he had observed the C152(B) from 'far away' and therefore presumably could have turned away at an early stage should he have been sufficiently concerned at the C152(B)'s flight path and manoeuvres. Instead, it appeared that the C152(A) pilot expected the C152(B) to remain clear of his flight path and, when the C152(B) pilot presumably inadvertently turned towards his aircraft at close quarters, had effectively allowed himself to fly into close proximity with the C152(B) (**CF4**). Turning to risk, the Board agreed that the reported and recorded separation, with one of the aircraft reportedly conducting aerobatic manoeuvres and probably unsighted to the other, represented a situation where safety had been much reduced below the norm.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

CF	Factor	Description	Amplification
	Flight Elements		
	• Tactical Planning and Execution		
1	Human Factors	• Insufficient Decision/Plan	Inadequate plan adaption
2	Human Factors	• Transponder Selection and Usage	Not correctly selected
	• Situational Awareness of the Conflicting Aircraft and Action		
3	Contextual	• Situational Awareness and Sensory Events	Pilot had no, or only generic, or late Situational Awareness
	• See and Avoid		
4	Human Factors	• Lack of Action	Pilot flew into conflict

Degree of Risk: B.

Recommendation: Nil.

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:

Ground Elements:

Situational Awareness of the Conflication and Action were assessed as **not used** because neither pilot was in receipt of a FIS that would provide SA.

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the C152(A) pilot continued into conflict despite seeing the C152(B) 'far away'.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot was in receipt of a FIS that could provide such SA.

See and Avoid were assessed as **partially effective** because the pilot of C152(A) could have remained clear of the manoeuvring C152(B) by ensuring greater lateral or vertical separation.

