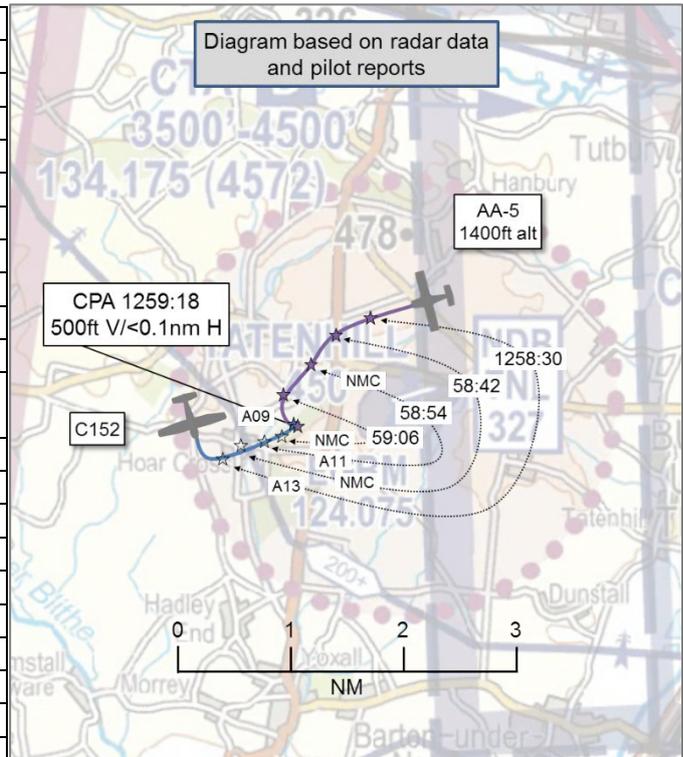


**AIRPROX REPORT No 2019071**

Date: 23 Apr 2019 Time: 1259Z Position: 5249N 00147W Location: Tatenhill – elev 450ft

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	AA5
Operator	Civ FW	Civ FW
Airspace	Tatenhill ATZ	Tatenhill ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Tatenhill Radio	Tatenhill Radio
Altitude	900ft	1400ft
Transponder	A, C	A, C
Reported		
Colours	White, blue, green	White, blue
Lighting	NK	NK
Conditions	VMC	VMC
Visibility	10km	NK
Altitude/FL	400ft	NK
Altimeter	QFE (993hPa)	NK
Heading	080°	080°
Speed	65kt	80kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	50ft V/20m H	Not seen
Recorded	500ft V/<0.1nm H	



**THE C152 INSTRUCTOR** reports that the student was established on final approach for RW08. They were aware that the AA5 pilot had called downwind but when they were at about 400ft the next call from the AA5 pilot was that he was on final. The AA5 then appeared as it rolled out over the top of them and overtook as it descended towards the runway. The C152 pilot went around due to the close proximity of the AA5.

He assessed the risk of collision as 'Medium'.

**THE AA5 PILOT** reports that he was established on downwind for RW08L. An aircraft following had also reported downwind and visual with the AA5. No other radio calls were heard and no traffic seen. He turned tight-left-base and final and called final to land. After touchdown a pilot reported that the AA5 had flown over them at about 50ft and that they would file an Airprox. The AA5 pilot noted that a final call from the other pilot and a better lookout from himself, with a call on base leg, may have avoided this incident by alerting each pilot to their relative positions.

**THE TATENHILL AGCS OPERATOR** did not respond to the UKAB request for a report.

**Factual Background**

The weather at East Midlands was recorded as follows:

METAR EGNX 231320Z 06012KT 020V090 CAVOK 18/09 Q0998=  
 METAR EGNX 231250Z 07012KT 9999 FEW045 18/09 Q0998=

## Analysis and Investigation

### UKAB Secretariat

The C152 and AA5 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation<sup>2</sup>.

### Summary

An Airprox was reported when a C152 and an AA5 flew into proximity in the Tatenhill visual circuit at 1259hrs on Tuesday 23<sup>rd</sup> April 2019. Both pilots were operating under VFR in VMC, both in receipt of an AGCS from Tatenhill Radio.

### **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from both pilots and radar photographs/video recordings. 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 quickly agreed that this incident had resulted from each pilot losing SA on the position and intentions of the other. In this respect, GA members reiterated that it was essential for pilots operating in the visual circuit to report their position accurately with their intentions. The Board recognised that in a training environment this may not always be the case, for example a student pilot making a late or incorrect call, but that this in turn required extra vigilance from instructors such that integration with other traffic was not jeopardised. The Board agreed that, ultimately, it was for the AA-5 pilot to ensure that he integrated with the C152 ahead (**CF1**), and that by turning tight left-base he had not done so (**CF2, CF3, CF6**). It was also apparent that the AA-5 pilot had not heard or assimilated the C152 pilot's 'final' call (**CF5**), although without any R/T transcripts, members could not determine whether the C152 student had actually made a final call before CPA. In this respect, members agreed with the AA-5 pilot's analysis of actions that could have been taken to afford further mitigation, particularly the introduction of a 'base' call for information purposes in the A/G environment (**CF4**).

It was unfortunate that the design of the aircraft was such that the high-wing C152 was obscured to the low-wing AA-5, and vice versa, (**CF7**), and members surmised that each pilot was concentrating on the runway, perhaps to the detriment of a more robust lookout (**CF8**). GA members commented that this incident was a timely reminder of the need for low-wing aircraft to drop the outboard wing to conduct a scan up the approach path before turning final in case there were aircraft already on the approach that had not been assimilated (as in this case), or were potentially radio-failure or non-radio equipped.

In the event, neither pilot saw the other until after CPA (**CF9**) and so no further action could have been taken by either to increase separation. Members initially thought that this situation warranted a Category A risk assessment (a situation that stopped just short of collision) but, on consideration of the radar replay, it was evident that the aircraft had been separated vertically by about 500ft shortly before CPA and that the C152 pilot had seen and taken avoiding action on the AA-5 soon after. The Board felt that the C152 pilot's assessment of separation was more likely the separation shortly afterwards, as the AA-5 descended steeply in front and into his field of view whilst conducting his tight circuit. Members therefore agreed that although the potential for a catastrophic outcome had been plain, in actuality the AA-5 had probably passed over the C152 with an appreciable degree of vertical separation. Notwithstanding, it was clear to the Board that safety had been much reduced below the norm and that there had been a real risk of collision. Accordingly, they agreed that the risk of collision was probably best described as Category B.

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<sup>1</sup> SERA.3205 Proximity.

<sup>2</sup> SERA.3225 Operation on and in the Vicinity of an Aerodrome.

The Board also discussed R/T procedure at aerodromes with an AGCS. It was noted that the Skyway code provided information and advice in this regard but members felt that there was potential for improvement, particularly with regard to position reporting and the SA that afforded to other pilots in the circuit and those joining. In particular, it was felt that a call using a format of 'left/right base for runway XX' would afford valuable SA to those on final and joining. The Board felt strongly enough that they resolved to recommend that, 'The CAA review R/T procedures at non-ATS aerodromes'.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

### Contributory Factors:

2019071			
CF	Factor	Description	Amplification
	<b>Flight Elements</b>		
	<b>• Regulations, Processes, Procedures and Compliance</b>		
1	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with
	<b>• Tactical Planning and Execution</b>		
2	Human Factors	• Action Performed Incorrectly	Incorrect or ineffective execution
3	Human Factors	• Aircraft Navigation	Did not avoid/conform with the pattern of traffic already formed
4	Human Factors	• Accuracy of Communication	Ineffective communication of intentions
	<b>• Situational Awareness of the Conflicting Aircraft and Action</b>		
5	Human Factors	• Understanding/Comprehension	Pilot did not assimilate conflict information
6	Human Factors	• Monitoring of Other Aircraft	Pilot did not sufficiently integrate with the other aircraft
	<b>• See and Avoid</b>		
7	Contextual	• Poor Visibility Encounter	One or both aircraft were obscured from the other
8	Human Factors	• Distraction - Job Related	Pilot looking elsewhere
9	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: B.

Recommendation: The CAA review R/T procedures at non-ATS aerodromes.

### Safety Barrier Assessment<sup>3</sup>

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 Confliction and Action** were assessed as **not used** because neither pilot was in receipt of a surveillance based FIS.

#### **Flight Elements:**

**Regulations, Processes, Procedures and Compliance** were assessed as **ineffective** because the AA-5 pilot did not integrate with the C152 ahead in the visual circuit.

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

**Tactical Planning and Execution** was assessed as **ineffective** because the AA-5 pilot turned tight-left-base and finals without adequately clearing the final approach path first.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because neither pilot was aware of the other aircraft until at or after CPA.

**See and Avoid** were assessed as **ineffective** because neither pilot saw the other aircraft until at or after CPA.

