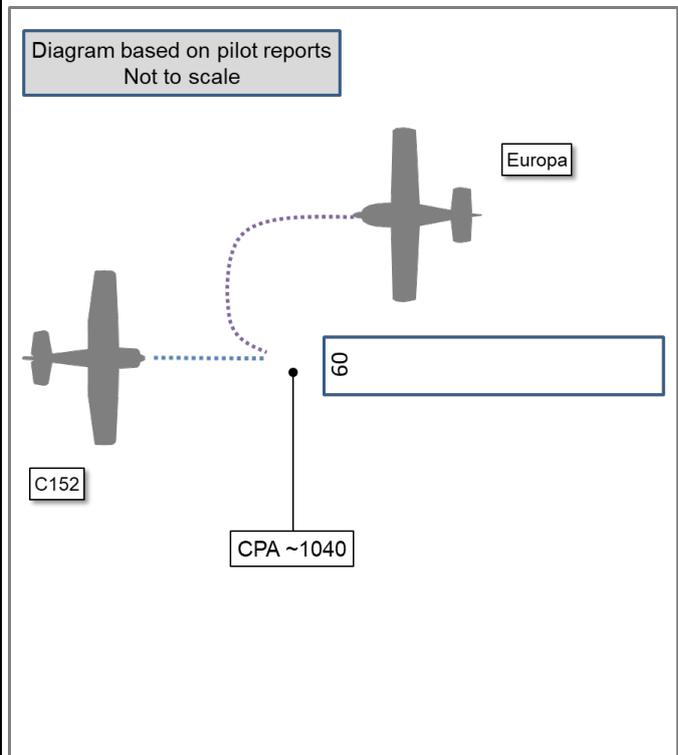


**AIRPROX REPORT No 2021067**

Date: 01 Jun 2021 Time: 1040Z Position: 5626N 00322W Location: Perth

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	Europa
Operator	Civ FW	Civ FW
Airspace	Perth ATZ	Perth ATZ
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Perth	Perth
Altitude/FL	NK	NK
Transponder	A, C, S	Off
<b>Reported</b>		
Colours	White	White
Lighting	Beacon, Nav, Landing	Strobes
Conditions	VMC	VMC
Visibility	5-10km	NR
Altitude/FL	800ft	NR
Altimeter	QNH (1018hPa)	QNH
Heading	090°	090°
Speed	60kt	70kt
ACAS/TAS	Not fitted	PilotAware
Alert	N/A	Off
<b>Separation</b>		
Reported	20ft V/0m H	Not Seen
Recorded	NK	



**THE C152 PILOT** reports they were conducting circuits with a student. When late downwind, they noted that the pilot in a Europa called downwind and was in the mid downwind position when they turned base. They turned final and made a radio call "[C/S] Final for Touch and Go Runway 09". At around 800ft QNH (400ft AAL) the instructor spotted – by chance – the Europa in the top left of the windscreen. They could only see the wings and forward, so the tail plane was directly above their aircraft. As they spotted the aircraft, the other pilot made a radio call reporting final. They simultaneously made a radio call "[Europa C/S] Do NOT descend, I am below you" whilst rolling to the right to try to keep sight of it. They opined that it must have been slower because it went out of view above them. They were weaving on final in hope to regain visual whilst calling the tower and asking if they could see the other aircraft on final. They were assured that it was out of the way now and breaking off right. So they continued down on final, not becoming visual and reluctant to go around in case it was still above their aircraft. They continued to low level to land but the student had to go around so they climbed into the circuit to land. On the low level go around they were still unsure of the position of the Europa but heard Tower talking to them and that the other pilot was visual with the aircraft on the climb out.

The pilot assessed the risk of collision as 'High'.

**THE EUROPA PILOT** reports that they did not see the other aircraft. They heard the aircraft on the downwind leg and did not see an aircraft in front as they turned left base. They turned finals in the usual pattern and still did not see anything in front so called finals and continued with the approach. About 600 yds out they heard an aircraft call short finals which was exactly where they were and immediately called an overshoot. They flew straight and level for about half the runway length so as not to climb into a descending aircraft and went around. They did not see the aircraft and no comment was made. They opined that if the other pilot knew they were in a Europa and they could not see them, the other pilot must have been behind them and therefore quite capable of avoiding the situation. They were in the

hangar for about an hour afterwards and the other pilot did not come over to discuss the incident. They noted that they understood the commercial pressures of flight training and had no wish to create conflict but thought this should have been discussed locally to start with so that the safety issues could have been addressed. They opined that this was all against a background of the conflict between the training school at Scone who do not like club aircraft doing circuits when they are busy. There were 4 aircraft in the circuit at the time. Flying the Europa monowheel is tricky to land and due to the enforced layoff the Europa pilot needed the landing practise and were entitled to use the airfield. When they started they were the only aircraft in the circuit but were quickly joined by the others. They noted that normally they do not do many circuits so as to keep out of the way but on this occasion needed the practise.

**THE PERTH AGO** reports that the circuit for RW09 at Perth was busy at the time with possibly two or three C152s and the Europa. The Europa was above and came close to the C152 on final approach. They could not estimate how close it was to the C152. The pilots resolved the situation without any intervention from the Tower. From the Tower, the Europa was difficult to see in the circuit due to its low profile, white colour scheme and the haze.

## **Factual Background**

The weather at Dundee was recorded as follows:

METAR EGNP 011020Z 10009KT CAVOK 15/11 Q1017=

An unofficial weather observation at Perth was reported as follows:

1000z: No significant wind, 9000m in haze to the north, SKY030, 23/13, 1019=

## **Analysis and Investigation**

### **UKAB Secretariat**

The C152 and Europa 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>

## **Comments**

### **Perth Accountable Manager**

There is no conflict between the flying school and club members at Perth, and club members are free to conduct circuits as required.

## **Summary**

An Airprox was reported when a C152 and a Europa flew into proximity on final at Perth at 1040Z on Tuesday 1<sup>st</sup> June 2021. Both pilots were operating under VFR in VMC and both were in receipt of an AGCS from Perth.

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

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate operating authorities. 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.

<sup>1</sup> (UK) SERA.3205 Proximity.

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

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments.

The Board first looked at the actions of the C152 pilot. They were operating in the visual circuit and reported that they were aware that the Europa was downwind behind them (**CF3**). Once on final, they didn't see the Europa until it was above them (**CF4**) and members noted that when on final it was normal to be concentrating on the runway ahead, not looking around for other traffic, and given that the Europa was above the C152, not in the normal field of vision (**CF6**) it was fortunate that they saw the Europa at all. Once visual the pilot was able to broadcast a message to alert the other pilot who was able to conduct a go-around, but this was likely to have been at CPA.

Turning to the Europa pilot, they reported that they had been in the circuit for some time and heard the C152 pilot call downwind ahead of them so had generic situational awareness (**CF3**), but could not see the other aircraft. Members thought that rather than continuing onto final without knowing where the other aircraft was, the pilot should have made a call asking for more information (**CF2**). They also noted that even when following the standard circuit pattern, it was good practise to look up the approach lane prior to turning base in order to check for any other aircraft and in this case the Europa pilot may have seen the C152. However, by turning without being visual they had not integrated with the other circuit traffic (**CF1**) and did not see the C152 beneath them (**CF5, CF6**). Once they heard the warning from the other pilot, the Europa pilot acted quickly and conducted a go-around but it was likely that separation was at the bare minimum given that the C152 pilot reported it was only 20ft away and they could only see the front end of the Europa. Members thanked the Europa pilot for their honesty in noting that they needed the circuit and landing practise and noted that there were a number of recent visual circuit Airprox in which pilots appeared to be lacking in currency. They urged pilots not to become complacent in the visual circuit and to maintain concentration and circuit discipline.

When determining the risk of the Airprox, members quickly agreed that it was likely that the separation was reduced to the bare minimum, the C152 pilot had reported it was just 20ft, and that there had been an element of providence because the Europa pilot had not been visual with the C152 and had been descending at the time. Therefore, the Board agreed there had been a serious risk of collision; Risk Category A.

## **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

### Contributory Factors:

	2021067			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	<b>Flight Elements</b>			
	<b>• Tactical Planning and Execution</b>			
1	Human Factors	• Monitoring of Environment	Events involving flight crew not to appropriately monitoring the environment	Did not avoid/conform with the pattern of traffic already formed
	<b>• Situational Awareness of the Conflicting Aircraft and Action</b>			
2	Human Factors	• Lack of Communication	Events involving flight crew that did not communicate enough - not enough communication	Pilot did not request additional information
3	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late or only generic, Situational Awareness
	<b>• See and Avoid</b>			
4	Human Factors	• Identification/Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
5	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots

6	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other
• Outcome Events				
7	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: A.

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:

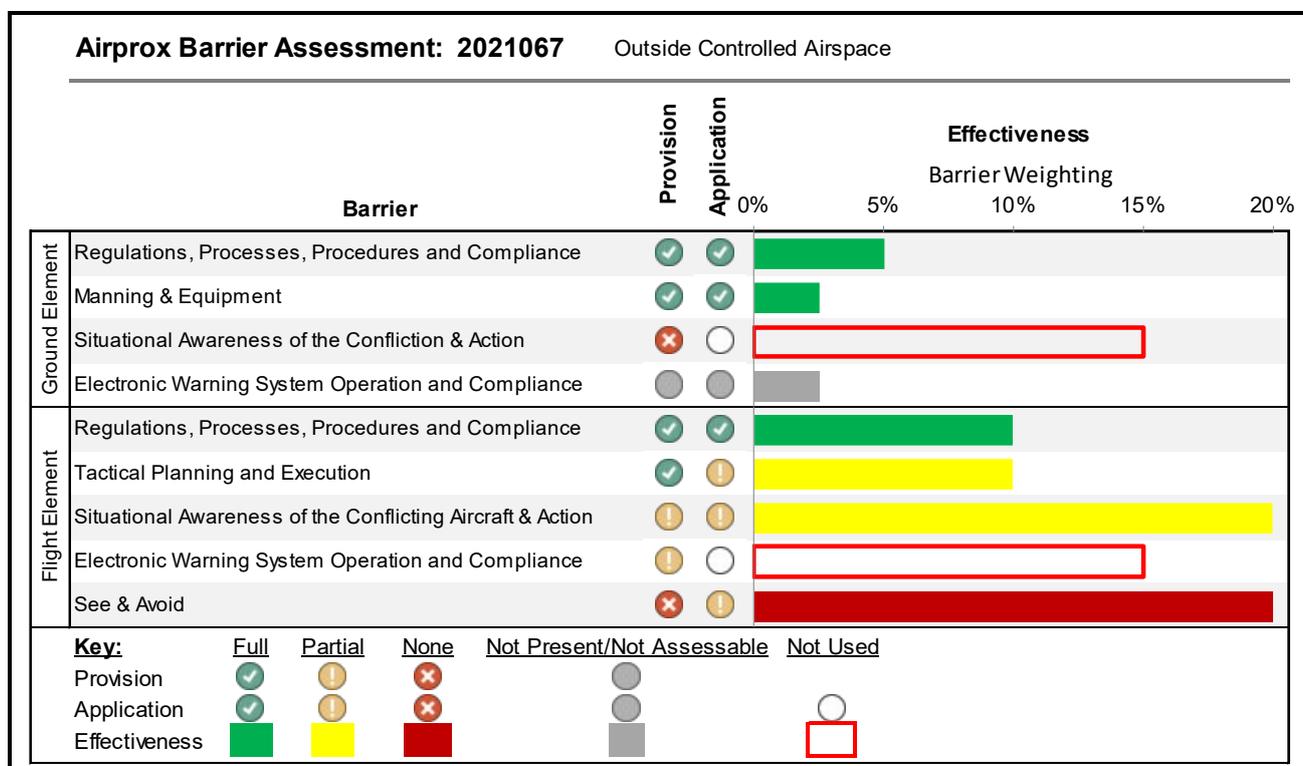
**Flight Elements:**

**Tactical Planning and Execution** was assessed as **partially effective** because the Europa pilot did not conform with the pattern of traffic in the visual circuit.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **partially effective** because both pilots had only generic information about the other in the circuit.

**Electronic Warning System Operation and Compliance** were assessed as **not used** because the Europa pilot had turned off the PilotAware.

**See and Avoid** were assessed as **ineffective** because the Europa pilot did not see the C152 and the C152 saw the Europa pilot at CPA.



<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](#).