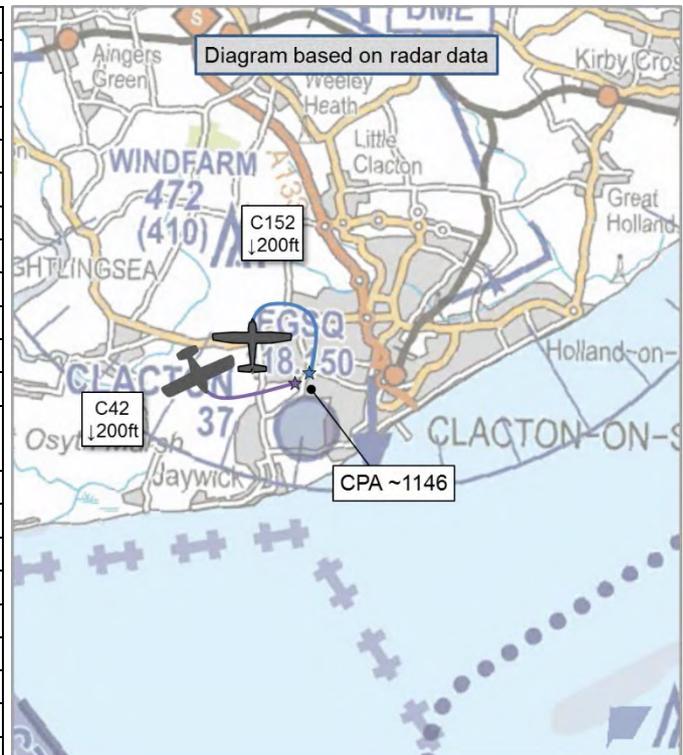


## AIRPROX REPORT No 2018147

Date: 23 Jun 2018 Time: 1146Z Position: 5147N 00107E Location: Clacton airfield

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	C42
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Listening Out
Provider	Clacton Radio	Clacton Radio
Altitude/FL	NK	NK
Transponder	A, C, S	A, C, S
<b>Reported</b>		
Colours	White, Blue, Red	White
Lighting	Beacon, Landing, Nav	Strobe
Conditions	VMC	VMC
Visibility	10km	
Altitude/FL	5ft	20ft
Altimeter	QNH (1027hPa)	QFE
Heading	180°	180°
Speed	65kt	60kt
ACAS/TAS	Not fitted	Not fitted
<b>Separation</b>		
Reported	10ft V/0m H	Not Seen
Recorded	NK	



**THE C152 PILOT** reports that he was flying into Clacton with PPR and had received the airfield brief. He switched from Southend Radar to Clacton Radio and flew east to the coast to join downwind for RW18 at 1000ft. He called inbound and then made the usual 'downwind' and 'turning base' calls before slowing the aircraft down to turn final at 500ft and called 'final'. Just as he was flaring to touch down, an aircraft flew about 10ft above to land ahead, luckily the other pilot decided to go around because he was too long on approach before the pedestrian pathway. He noted that he had not heard any positioning calls from the other pilot, other than the go-around call. Once on the ground he spoke to the pilot who confirmed that he had not seen the C152, but went around because he was landing long.

He assessed the risk of collision as 'High'.

**THE C42 PILOT** reports that as he approached the Clacton circuit he saw the Cessna heading north at about 1000ft. He believed he heard a call that he was leaving the circuit, and certainly did not hear any other circuits calls, so he discounted him as circuit traffic. He joined for a short circuit, calling that he was joining 'right base' on the RT. The shortened circuit was to avoid flying low over the houses on the standard approach because the C42 doesn't lose height very well without a decent headwind and RW18 at Clacton is a downhill runway which causes less speed bleeding and increased ground effect. As he joined the circuit he did not see any traffic on final, but the other plane may have been under his nose, or hidden by the ground clutter of the housing estate. He was unable to lose height and speed sufficiently so declared going around and, after climbing out, heard the Cessna pilot ask where he had come from. At no point prior did he have visual contact with the C152. After the second landing attempt he met the airfield operator and the other pilot and was informed that he had flown over the C152 by only a few feet. Although neither pilot had heard the others' calls, the airfield operator confirmed that the correct calls had been made.

## Factual Background

The weather at Southend was recorded as follows:

METAR EGMC 231220Z 31008KT 250V360 CAVOK 22/03 Q1027=

## Analysis and Investigation

### UKAB Secretariat

The following radar screen shots were taken from the NATS radars. At Figure 1, the C152 is established in the circuit and the C42 is approaching from the north-west. Figure 2 shows the C152 northbound, as reported by the C42 pilot; the C42 joins the circuit and can be seen making a tight circuit (Figure 3). The closest that the two aircraft appear on the radar is at 1146:33 when they are 400ft and 0.2nm apart, after which the C42 fades from radar followed shortly afterwards by the C152. It is likely that actual separation is much closer than this as the two aircraft continue on finals, but the minimum separation is not known.

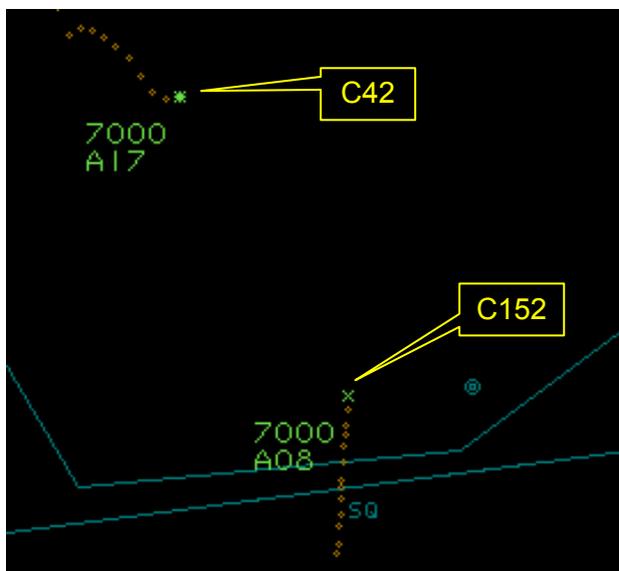


Figure 1: 1144:26

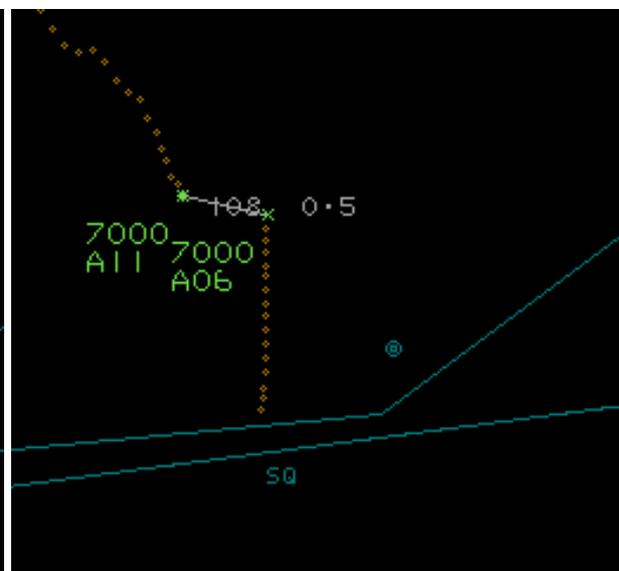


Figure 2: 1145:12

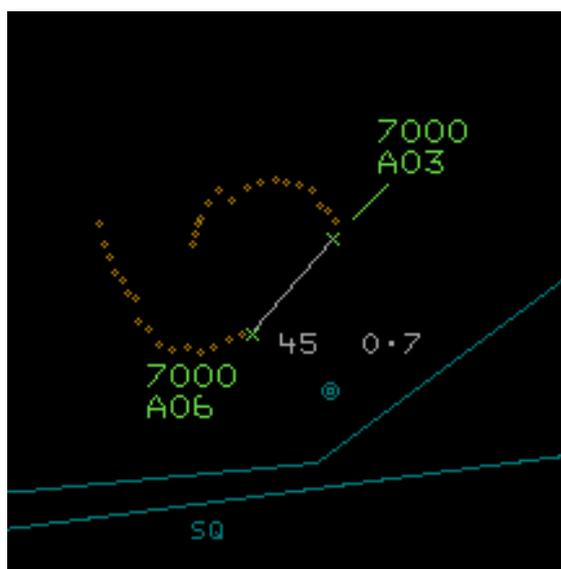


Figure 3 1146:14

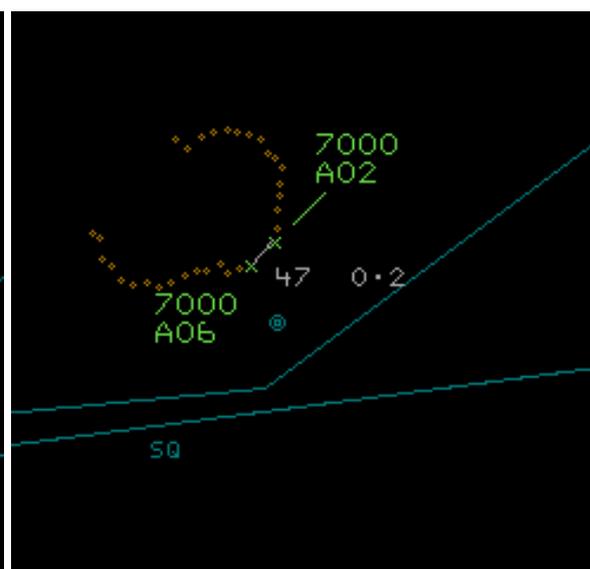


Figure 4 1146:33

The C152 and C42 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>. Additionally, SERA 3210 states:

*(4) Landing. An aircraft in flight, or operating on the ground or water, shall give way to aircraft landing or in the final stages of an approach to land.*

*(i) When two or more heavier-than-air aircraft are approaching an aerodrome or an operating site for the purpose of landing, aircraft at the higher level shall give way to aircraft at the lower level, but the latter shall not take advantage of this rule to cut in front of another which is in the final stages of an approach to land, or to overtake that aircraft.*

## Occurrence Investigation

### Clacton Company Statement

Due to staffing and customers on the ground, the A/G position was not being manned during the time of the Airprox. From asking staff, no one can positively recall all aspects of the incident. Both pilots were given PPR and had the airfield brief, which included the runway in use and the circuit pattern, prior to arrival. It was believed that the C152 pilot was passed runway in use on his initial call by club instructors making traffic calls. It was observed by an instructor that the C152 flew a standard circuit pattern, but that the C42 flew a non-standard tight right-base and his subsequent turn to final was high which resulted in a missed approach being executed.

### Summary

An Airprox was reported when a C152 and a C42 flew into proximity at 1146hrs on Saturday 23rd June 2018 in the Clacton circuit. Both pilots were operating under VFR in VMC. Clacton does not have ATC but both pilots were on the Clacton Radio frequency.

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

Information available consisted of reports from the pilots of both aircraft and radar photographs/video recordings.

The Board first looked at the actions of the C152 pilot. He joined the visual circuit and, because the Air to Ground frequency was not manned, made blind circuit positioning calls. He flew a standard circuit, but unfortunately did not hear the C42 pilot also call to join. He was therefore surprised to see the C42 make an approach over the top of his aircraft when on final, and the Board determined that, as a result, he did not have time to take avoiding action.

For his part, the C42 pilot called to join the visual circuit and, seeing the C152 tracking north downwind, made a flawed assumption that it was leaving the circuit. He also unfortunately did not hear the other pilot's calls and, thinking the circuit was therefore clear flew a non-standard shortened circuit with a tight right-base. He did not see the C152 on final and overflew it; fortuitously, he was high and fast on the approach, so executed a go-around.

The Board noted that neither pilot had heard the other's calls, although the airfield operator had seemingly confirmed that they had been received by him; the Board could not determine why the 2 pilots had not heard each other and wondered whether it had been aerial blanking or simply just not assimilating each other's transmissions. GA members also commented on the dangers of flying non-standard circuits, especially tight circuits, because, as in this incident, doing so puts the aircraft in an unexpected position that may deny them, and other pilots, the opportunity to see other aircraft that they might not be aware of simply because they are not in the area normally associated with the standard circuit position; tight circuits also demand greater attention to aircraft handling, which can be to the

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

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

detriment of lookout and listen-out. Even when normal circuit patterns are flown, this Airprox highlighted the need to be vigilant in the visual circuit when there is no ATC or A/G operator to pass Traffic Information, even if the circuit is believed to be clear. An absence of RT does not indicate the circuit is clear, and there is always the possibility of a non-radio aircraft (or one with a radio failure), being in the pattern, so good look-out must be maintained at all times, including looking below-ahead and up the final approach path before turning onto finals.

Turning to the cause of the Airprox, the Board quickly agreed that the C42 pilot had not integrated with the C152 ahead in the visual circuit, with a contributory factor that neither pilot had assimilated the other's RT transmissions. They determined that there had been a serious risk of collision because neither pilot had seen the other before the Airprox, no avoiding action had been taken and, at the reported 10ft separation, it was clear that providence had played a major part in collision avoidance.

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

Cause: The C42 pilot did not integrate with the C152 ahead in the visual circuit.

Contributory Factor: Neither pilot assimilated the other's R/T transmissions.

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:

**ANSP:**

**Manning and Equipment** were assessed as **not used** because although Clacton sometimes provides AGCS, at the time of the Airprox the radio was not being manned.

**Situational Awareness and Action** were assessed as **not used** because there was no-one available to provide situational awareness to the pilots.

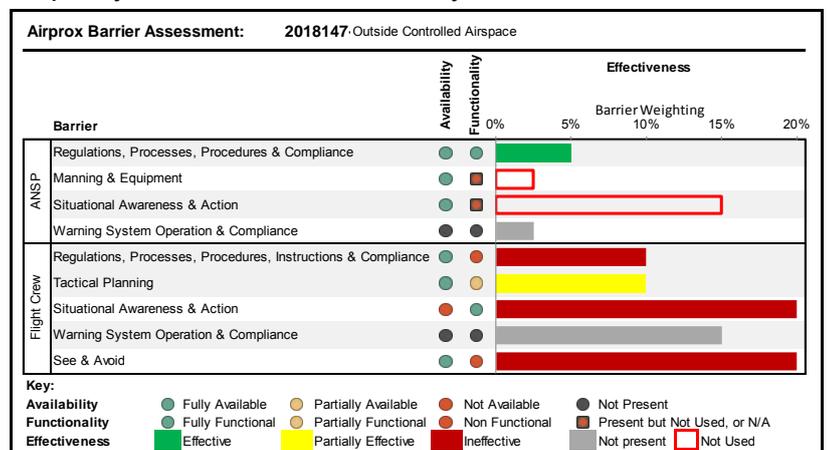
**Flight Crew:**

**Regulations, Processes, Procedures, Instructions and Compliance** were assessed as **ineffective** because the C42 pilot did not integrate with the C152 in the visual circuit.

**Tactical Planning** was assessed as **partially effective** because the C42 pilot flew a non-standard, tight visual circuit which likely sapped his capacity to also lookout effectively.

**Situational Awareness and Action** were assessed as **ineffective** because neither pilot was aware of the presence of the other in the circuit.

**See and Avoid** were assessed as **ineffective** because neither pilot was able to take any avoiding action, it was fortuitous that the C42 went around due to his height and speed.



<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](http://www.ukab.co.uk).