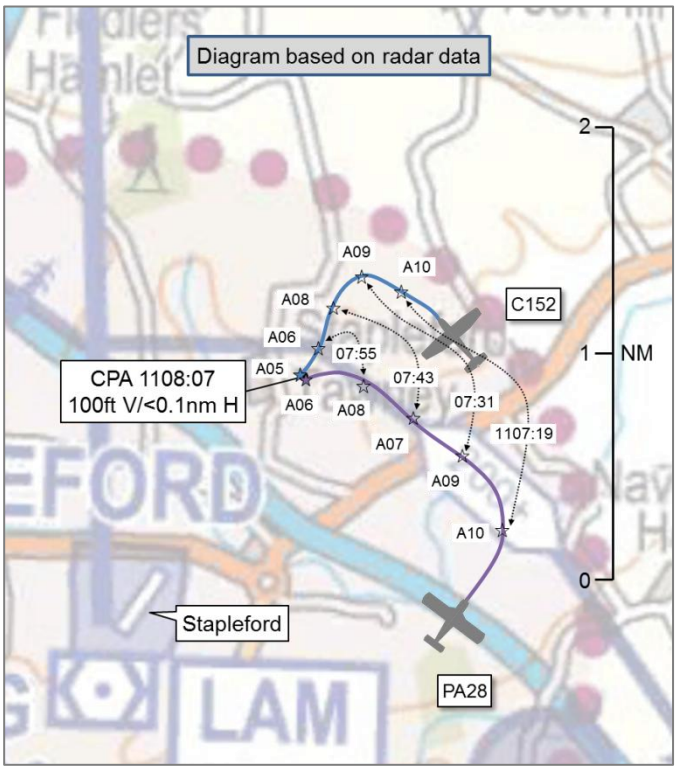
AIRPROX REPORT No 2014232

Date/Time: 14 Dec 2014 1108Z (Sunday)

Position: 5140N 00011E (Stapleford)

Airspace: Stapleford ATZ (*Class*: G)

	Aircraft 1	*Aircraft 2*
Type:	C152	PA28
Operator:	Civ Trg	Civ Pte
Alt/FL:	400ft QNH (NK hPa)	NK QNH (1013hPa)
Conditions:	VMC	VMC
Visibility:	50km	10km
Reported Separation:	50ft V/15m H	Not seen
Recorded Separation:	100ft V/<0.1nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE C152 PILOT reports on short final to land on RW22 at Stapleford Aerodrome. The white and blue aircraft's lighting state was not reported. The SSR transponder was selected on with Modes A, C and S. The aircraft was not fitted with a TAS. The pilot was operating under VFR in VMC, in receipt of an A/G Service from Stapleford Radio. About 30sec before touchdown, heading 220° at 65kt and descending through altitude 400ft, he was overtaken on the left, and from above, by a white and blue, low-wing, single engine aircraft. He instructed his student to go-around.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports on final approach to land on RW22 at Stapleford Aerodrome, heading 220° at 90kt. The white and blue aircraft had wingtip strobes selected on, as was the SSR transponder with Modes A, C and S. The aircraft was not fitted with a TAS. The pilot was operating under VFR in VMC in receipt of an A/G Service from Stapleford Radio. The pilot had conducted a solo local flight. The weather was sunny, but very windy and, being a Sunday, there was a lot of activity. On recovery to Stapleford he called 'ATC' who confirmed RW22 'left' in use with QNH 1013 and 'hard surfaces only'. Shortly afterwards, he called 'descending dead-side for 22 left' and a few moments later another aircraft called 'descending dead-side'. The PA28 pilot was now at 1200ft, crossing the [upwind] centreline to join the circuit. 'ATC' called him for a position report and asked if he had contact with the other aircraft. He responded with 'turning downwind 22'. He completed the downwind checks and noted that RT activity at that point was almost continuous; much of it unrelated to Stapleford ground or circuit traffic, e.g. a microlight passing overhead and other aircraft in transit. As always, he tried to form a mental picture of who was in the circuit, but late calls were making this difficult, because of the intense radio traffic. He did not hear any other pilot call 'downwind' and did not see any other aircraft ahead so made the assumption that he was number 1 to land. He heard a pilot call 'touch and go'. The PA28 pilot stated that this may well have been the Cessna training aircraft in question but that he made an erroneous assumption that this aircraft was behind him, and turned onto base leg. The pilot noted that, as often happens at Stapleford in the winter months, the soft ground (grass) was out of bounds. This resulted in greater spacing required in the circuit to allow aircraft to backtrack on the hard runway. As a result, pilots often give earlier notice of their intentions to either full-stop and backtrack or touch and go, rather than wait until 'final'. Seeing nothing ahead, the pilot continued to descend and turn onto final. All his concentration was now on flying the aircraft and watching the threshold for any aircraft lining up with the wind speed at about 15kt gusting 20kt.

He was not able to make a radio call until 'short final' because of the busy radio. The PA28 pilot did not see the C152 at any stage. The PA28 pilot commented that this may have been due to a 'high-wing/low-wing' issue and that not assimilating the relevant radio calls and high work-load were the main factors in this Airprox.

THE STAPLEFORD A/G OPERATOR reports the runway in use was 22 left 'hard' with an instruction for hard surfaces only to be used, necessitating a backtrack of the active runway by landing aircraft, due to the grass surfaces being waterlogged. This resulted, on some occasions, with aircraft extending downwind and to allow sufficient spacing for landing aircraft to backtrack. The A/G Operator noted that the frequency was extremely busy due to the volume of traffic on the radio at the time, including aircraft in transit via the overhead. The PA28 pilot had previously called him for airfield information and had subsequently taken off and departed the Zone. The C152 pilot had also called for airfield information and was in the circuit, along with other aircraft. The A/G Operator also had a number of aircraft departing. The PA28 pilot then called for a rejoin from the west at the same time as another aircraft transited overhead in the opposite direction. Having ensured the PA28 and transit aircraft pilots were aware of each other, and that no conflict existed, he saw the PA28 join the crosswind leg and begin the downwind turn. The frequency remained busy with locally based aircraft pilots calling for airfield information and a visiting pilot who had done a touch-and-go just prior. The A/G Operator heard a call for short final from the PA28 pilot and then a further call from the C152 pilot, asking for the PA28 pilot's name. The A/G Operator made a note of this in his log but was unable to deal with the request at the time due to the volume of calls on the radio.

Factual Background

The weather at London/City was recorded as follows:

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METAR EGLC 141050Z 22010KT 180V240 9999 NCD 08/02 Q1013=
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Analysis and Investigation

CAA ATSI

Stapleford has an Aerodrome Traffic Zone which consists of a 2nm circle centred on RW04/22, extending to 2000ft above the surface (elevation 185ft). Stapleford operate an A/G Service and do not record RTF. The Stapleford A/G Operator reported that RTF loading was high.

At 1105:26, the Stansted single-source radar recording showed the C152 pilot joining downwind left-hand for RW22. The PA28 was 1.5nm northwest of Stapleford. The PA28 pilot joined crosswind and, at 1106:50, turned downwind. Meanwhile, the C152 pilot had turned onto left-base, see Figure 1.

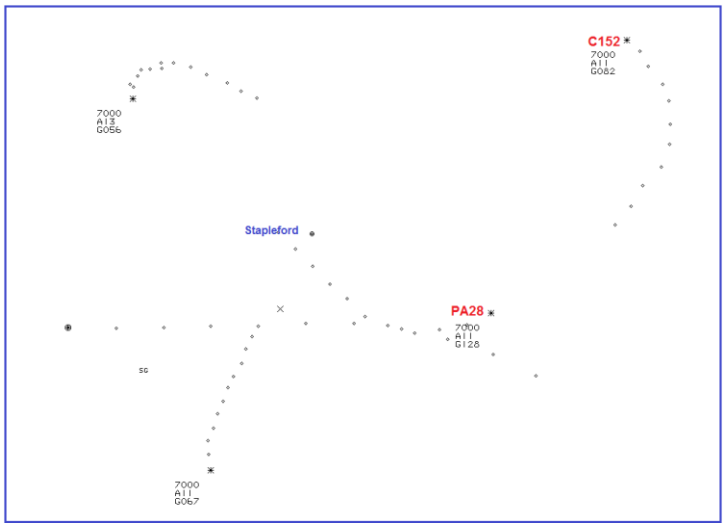

Figure 1: Swanwick MRT at 1106:50

At 1107:41, the C152 pilot had turned onto final approach. The PA28 pilot was on a shorter left-base and was converging with the C152 at a range of 0.6nm. Both aircraft were at 800ft, see Figure 2.

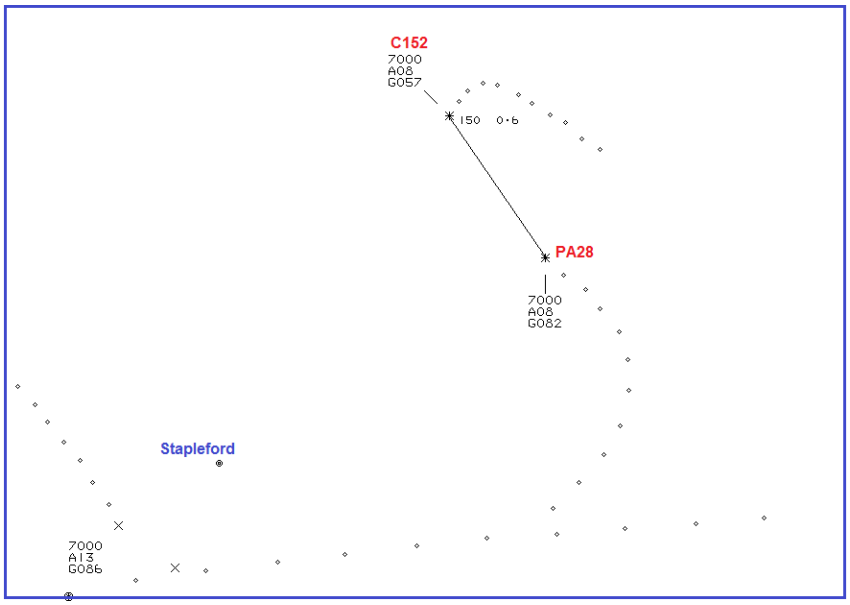

Figure 2: Swanwick MRT at 1107:41

At 1108:04, the C152 pilot was on final at 1.2nm and the PA28 pilot was converging from left-base, indicating 200ft above the C152, see Figure 3.

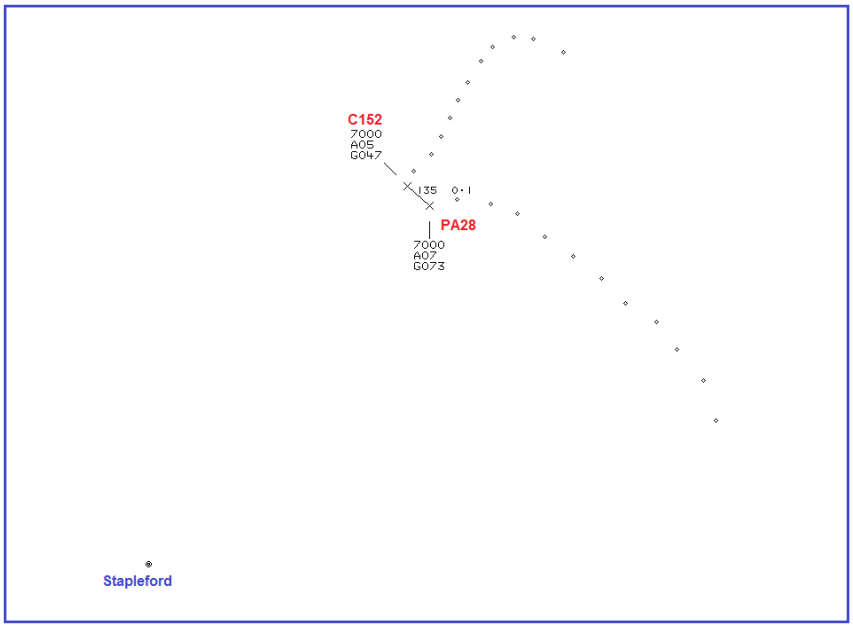

Figure 3: Swanwick MRT at 1108:04

The next radar update (1108:08) showed the horizontal distance between the aircraft was less than 0.1nm and the vertical distance was 100ft, see Figure 4.

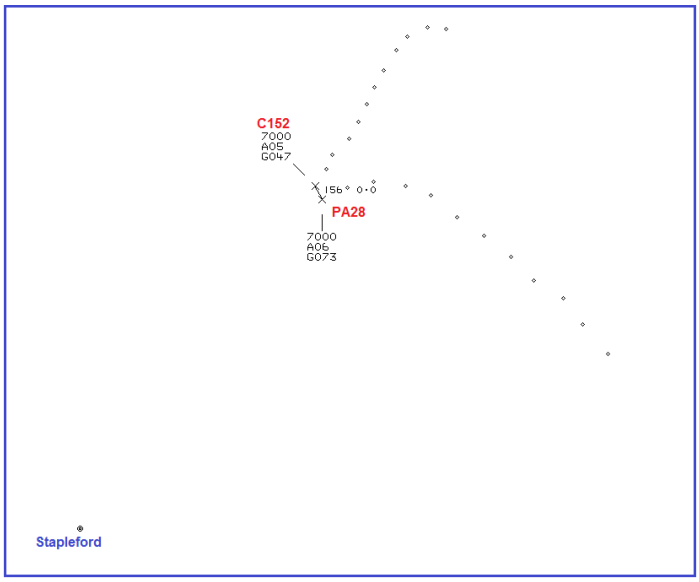

Figure 4: Swanwick MRT at 1108:08

The PA28's higher speed resulted in it overtaking the C152. At 1108:17, the PA28 was 0.1nm ahead of the C152 with both aircraft indicating 500ft, see Figure 5.

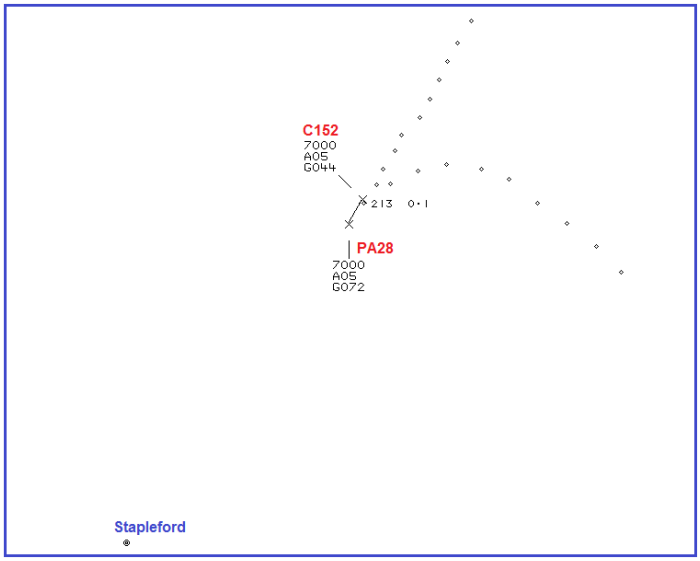

Figure 5: Swanwick MRT at 1108:17

In discussion, the A/G Operator indicated that he wasn't sure if the C152 pilot had extended downwind or whether the PA28 pilot had turned in ahead. He recalled that after the PA28 pilot had landed the C152 pilot had asked who the PA28 pilot was. The A/G Operator had passed information to the PA28 pilot regarding the C152. Neither pilot was in receipt of an Air Traffic Service and they were operating under VFR in Class G airspace, where pilots are ultimately responsible for their own collision avoidance.

UKAB Secretariat

The C152 and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[1]. 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 and 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

[1] SERA.3205 Proximity.

at the lower level[2]. An aircraft operated on or in the vicinity of an aerodrome shall observe other aerodrome traffic for the purpose of avoiding collision and conform with or avoid the pattern of traffic formed by other aircraft in operation[3]

Summary

An Airprox was reported when a C152 and a PA28 flew into proximity at 1108 on Sunday 14th December 2014. Both pilots were operating under VFR in VMC in receipt of an A/G Service from Stapleford Radio.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings, a report from the A/G Operator involved and a report from the appropriate ATC authority.

The Board quickly agreed that both the C152 and PA28 pilots were operating normally in the visual circuit at Stapleford. It fell to the PA28 pilot to avoid the C152 but, in the absence of visual contact and situational awareness of the C152's position, this was not accomplished. The PA28 pilot identified a number of factors such as high-wing / low-wing interference in lookout, use of only the hard surface resulting in modified RT calls, and high RT volume and workload; the Board commended him for his open and honest report. The Board agreed that the PA28 pilot had turned on to base from a shorter downwind leg than the C152 pilot, and that the resultant shorter ground track and slightly higher airspeed had caused the PA28 pilot to overtake the C152 when on final approach. The Board therefore concluded that the PA28 pilot had flown into conflict with the C152. From the C152 pilot's assessment of separation and the radar replay, the Board was satisfied that the 2 aircraft had missed each other by the narrowest of margins. Given that the C152 pilot did not see the PA28 until after CPA, and the PA28 pilot did not recall seeing the C152 at all, it was agreed that collision had only been averted by pure fortune.

The Air Ground Communication service (AGCS) provided by the A/G Operator is not considered an Air Traffic Service because it does not include an alerting service as part of its content. CAP 452 (Aeronautical Radio Station Operator's Guide), Chapter 4 (Air Ground Communication service), paragraph 1.2 states:

> 'AGCS radio station operators provide traffic and weather information to pilots operating on and in the vicinity of the aerodrome. Such traffic information is based primarily on reports made by other pilots. Information provided by an AGCS radio station operator may be used to assist a pilot in making a decision; however, the safe conduct of the flight remains the pilot's responsibility.'

It was evident that in the circumstances described, deconfliction within the visual circuit was entirely the pilots' responsibility. Members discussed the amount of flying activity at Stapleford and agreed that it was of such a level that an AGCS may not be appropriate. Consequently, the Board resolved to recommend that the Stapleford Aerodrome owner and the CAA review the suitability of the Stapleford A/G Service.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The PA28 pilot flew into conflict with the C152.

Degree of Risk: A.

Recommendation: Stapleford and the CAA review the suitability of the Stapleford A/G Service.

[2] SERA.3210 Right-of-way (c)(4) Landing.
[3] SERA.3225 Operation on and in the Vicinity of an Aerodrome.