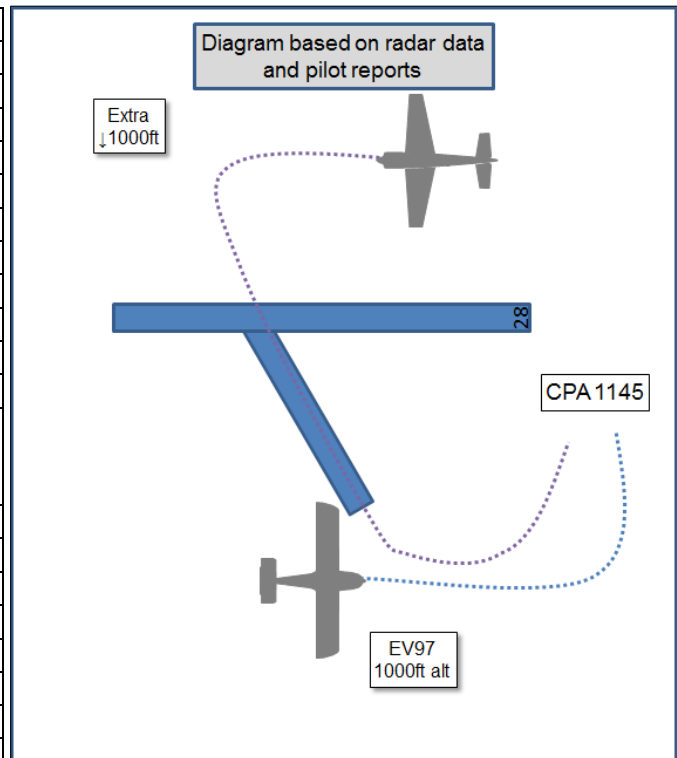


**AIRPROX REPORT No 2016083**

Date: 20 May 2016 Time: 1145Z Position: 5228N 00015W Location: Conington

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	EV97	Extra 200
Operator	Civ Trg	Civ Pte
Airspace	Conington ATZ	Conington ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Conington	Conington
Altitude/FL	NK	NK
Transponder	A,C,S	A,C,S
Reported		
Colours	Silver, Blue	Blue, White
Lighting	Landing, Wingtip, Nav, Strobes	Strobes, Nav
Conditions	VMC	VMC
Visibility	10km	10km
Altitude/FL	1000ft	1000ft
Altimeter	QFE (1011hPa)	QFE
Heading	100°	100°
Speed	78kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	100ft V/0m H	Not Seen
Recorded	NK	



**THE EV97 PILOT** reports that he was teaching circuits on RW28L, the student was the PF. After completing the 5<sup>th</sup> touch-and-go, he heard a muffled radio call, which appeared to come from an aircraft. The call was virtually unreadable and he heard Conington radio asking the aircraft calling to repeat his call, but he didn't hear any other calls. They turned downwind and called downwind to land, which was acknowledge by Conington A/G. At the base-leg turning point, the instructor suddenly noticed a blue and white Extra closing very fast from the left, behind and about 100ft above. He instigated a descent and a left turn to avoid, whilst the Extra continued on a straight and level path. He had not joined via an overhead join, he thought, nor reported his position as required in the Airfield Standing Orders; in fact there were no radio transmissions from him at all. Both the instructor and the student were shaken by the event and the instructor took control and landed the aircraft. He then reported on the Conington radio frequency his intention to report an Airprox.

He assessed the risk of collision as 'High'.

**THE EXTRA PILOT** reports that he is hard of hearing and frequently flies into Conington, who are familiar with his non-radio flights, during which he makes blind radio transmissions. He has also purchased an ICAO approved visual signal gun for the airfield to use when he flies there. On this particular day, he arranged for a friend (also a pilot) to make a telephone call at 1100 to book the non-radio arrival for later that morning. Conington accepted the non-radio arrival, and he was standing beside his friend as he wrote down the details, RW28 was relayed to him together with the QFE, and he was told to make a standard overhead join, which he confirmed through his friend that he would do. Although familiar with Conington and RW28 he checked Pooleys before he left to ensure he knew exactly what the overhead join entailed. He arrived at Conington approximately 45 minutes later, changed to the noted QFE whilst he was in the overhead, noted a grey aircraft taking off from RW28, and made a mental note to look for it in the circuit. He then made a standard call

whilst descending deadside 'Conington Radio, [C/S] descending dead side for downwind join for runway 28, left hand, transmitting blind.' He noted that he only uses 4 or 5 calls and always made the same call wherever he went, just changing the named radio service, so was very sure of the wording. Until recently he had repeated 'I say again transmitting blind' at the end of each call, but after a discussion with his instructor had decided to drop the repeat for fear of using up too much radio time. He believed that because his non-radio approach was booked, the tower would communicate as necessary with other aircraft in the circuit. He followed the normal overhead join circuit, which was confirmed later by his GPS track, and, as he crossed the airfield overhead RW16, he was approximately at 1000ft. He turned downwind perhaps a little (but not significantly) closer to the runway than normal because he wanted to avoid continuing on a heading of 160° which he felt could put him into conflict with any aircraft flying downwind which he might not have spotted. He had seen the grey aircraft depart when he was deadside and assumed it had left the circuit because he couldn't see it again. He turned downwind, and called '[C/S] downwind transmitting blind'. Although the Extra is particularly agile and can fly tight circuits he extended his downwind leg slightly to ensure that he would be behind any other aircraft that he had failed to spot. Having turned base leg, he considered making another call, which he has done on occasion, but not wanting to clutter the frequency, decided against it. He then turned final and again transmitted blind. As soon as he had spoken he saw the grey aircraft on the threshold. He noted that the particular hue of grey made it difficult to acquire visually. He went around, transmitting blind as he did so. He then repeated the circuit and recalls being given a green light on calling finals a few minutes later. He opined that Conington tower must have therefore appreciated that he was doing a non-radio approach in order to give him the green light. Following the landing he visited the tower, as he often does, and there was no mention of an Airprox. He noted that he had subsequently thought of the possibility that his radio wasn't working, and so asked his flying instructor to test it, it appeared to be transmitting normally. He commented that although he was asked to do an overhead join, he normally prefers a base leg join because it allows him to see others in the circuit more easily, and that overhead joins for RW10 require a base leg join. He was, however, confident that he performed the overhead join correctly, and this was backed up by his GPS. He did not see the other aircraft until final, and wondered whether it was beneath him, covered by his wing. But he noted that the other pilot had not seen him either, and opined that both he and the other pilot may have been distracted.

**THE CONINGTON AIR TO GROUND OPERATOR** reports that at about 1145z he received a call from an aircraft in the overhead descending. He had received a note from the admin team that stated that an Extra would be joining at about 1145, but the note did not state that it would be no-RT and at that time, he had not encountered this particular pilot flying in the Conington circuit before. He replied with "confirm [Extra C/S] in the overhead?". There was no reply, but he transmitted the airfield information and the number in the circuit. He then observed the aircraft crossing RW28 from the deadside to join downwind; the EV97 was already downwind, so he advised its pilot that the joining aircraft appeared to be joining behind. The aircraft then turned inside the EV97, again he told the EV97 pilot about it and asked him whether he was visual with it; both aircraft were now in the south-east corner of the circuit. He then asked the EV97 pilot whether the other aircraft was an Extra, the pilot replied that he had had a near miss and would be reporting it. The other aircraft was then seen to break-off and climb. The EV97 landed at 1152 and the Extra went around and landed at 1158.

## **Factual Background**

The weather at East Midlands was recorded as follows:

METAR EGNX 201120Z 24011KT 9999 FEW029 BKN045 15/09 Q1013=

## Analysis and Investigation

### UKAB Secretariat

The EV97 and Extra 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 an EV97 and an Extra flew into proximity at 1145 on Friday 20<sup>th</sup> May 2016. Both pilots were operating under VFR, in VMC, in the Conington visual circuit.

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

Information available consisted of reports from the pilots of both aircraft, radar recordings, and a report from the air to ground operator involved.

The Board first refreshed themselves on the CAA medical guidelines and procedures for pilots who are hard of hearing, and noted that GA flight was permitted with some restrictions such as not flying in CAS. There then followed a discussion on what measures could be taken by such pilots to mitigate any risks in an R/T environment, and it was noted that in this instance the Extra pilot had done all he could to pre-warn the A/G operator at Conington of his approach, had telephoned for PPR, given and adhered to an arrival time, had transmitted blind on the frequency and knew, because he had provided it, that Conington were able to give clearances to him via a lamp. Some members wondered whether it would be feasible for the pilot to fly with a safety person in the cockpit with him; however, bearing in mind that anyone who operated a radio would need to have a RT licence, other members felt that this might be overly restrictive. Some other members opined that if he didn't have a radio at all he would still be able to operate on his own, and this was further debated wherein it was recognised that there were important subtle differences between operating 'non-radio' compared to 'with a radio but with no receive'. In the former, the lack of any transmissions made it obvious to all that non-radio procedures would be required; in the latter, there was scope for uncertainty as to what the pilot's intentions might be. In this respect, members thought that his habit of suffixing R/T calls with 'transmitting blind' could be mis-leading for other pilots who might expect that he was still able to receive messages, but was simply unsure whether his R/T was going out. The Board then referred to the CAP 413 Radiotelephony manual and found that a more fitting phrase would be the recommended 'Transmitting blind due to receiver failure'<sup>3</sup>.

Turning to the incident itself, the Board noted that either with or without a radio, on joining the visual circuit the Extra pilot was still required to integrate with other circuit traffic. The Board reiterated the importance of looking out for circuit traffic at all times, especially in the overhead before descending to establish the pattern of any traffic, and at potential confliction points such as joining downwind. Some members wondered whether the Extra pilot had become overly focused on flying the correct ground track at the expense of his lookout, but they also recognised that a grey/silver aircraft might be difficult to see when looking down against a dark background. Nevertheless, it was incumbent upon him to integrate into the circuit safely, and he should have ensured that he was visual with the circuit traffic, and tracking its progress, whilst still in the overhead. Despite the EV97 pilot's reported misgivings as to the Extra pilot's overhead join, members noted that the Extra pilot had in fact correctly flown the published joining procedure and suggested that other operators at Conington might wish to refresh themselves on extant procedures so that all pilots were aware of where potential conflictions might occur.

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

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

<sup>3</sup> CAP 413 Chap 2, Communication Failure para 9

For his part, the EV97 pilot was already established in the circuit and could rightly have expected that joining traffic would fit in around him. The Board noted that he had reported only hearing a muffled call from the Extra, and didn't hear any response to Conington A/G operator's request to repeat the transmission; however, they felt that he should have been able to hear the A/G operator's subsequent reports giving traffic information about the Extra to him when he was still downwind, which was not acknowledged. That he apparently didn't hear or acknowledge these calls led some members to wonder whether he was task-focused in instructing his student such that both of them had their attention within the cockpit to the detriment of situational awareness and lookout in the circuit. That he questioned the Extra pilot's overhead join compliance suggested that the EV97 instructor may not have been aware of the potential overhead join/downwind track conflict, which in itself was an important learning point for his student in emphasising the need to lookout for other aircraft joining from the overhead who may be 'radio failure'.

Finally, the Board discussed the actions of the A/G operator. Noting that the Extra pilot had done all that he could to pre-warn Conington of his arrival, the Board were disappointed that communications had broken down and the message had not got through. Had the message been received by the A/G operator, and had he been able to inform the EV97 pilot about the no-R/T joining Extra, it is likely that this Airprox would not have happened. Although he saw the Extra joining, he did not realise it couldn't receive his calls and it wasn't until he saw it getting close to the EV97 that he was able to pass Traffic Information to its pilot. Only after the Extra had gone around did he realise that this was a non-R/T aircraft, at which point he was able to use the lamp for clearances. The Board thought that if the Extra pilot was likely to use Conington regularly, this incident was a timely reminder for all its A/G operators to be thoroughly briefed on the actions required when a non-R/T aircraft was in the circuit.

In determining the cause of the Airprox, the Board quickly agreed that although it had been unfortunate that the Extra pilot's efforts to pre-warn Conington had not succeeded, the root cause of the incident remained that the Extra pilot had not integrated with the EV97 in the visual circuit. However, they agreed that there was a contributory factor that the Conington A/G operator had not been informed about the Extra pilot's non-R/T join. The Board also resolved to make a recommendation to the Extra pilot that, in future, he adopts the phraseology contained in CAP413 for transmitting blind without a receiver. In assessing the risk, the Board thought that because the EV97 pilot didn't see the Extra until late, and the Extra pilot didn't see the EV97 until after the event, safety margins had been much reduced below the norm; they assessed the risk as Category B.

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

<u>Cause:</u>	The Extra pilot did not integrate with the EV97 in the visual circuit.
<u>Contributory Factor:</u>	The Conington Air/Ground Operator had not been informed about the Extra pilot's non-radio join.
<u>Degree of Risk:</u>	B.
<u>Recommendation:</u>	The Extra pilot uses the standard phraseology contained in CAP413 for transmitting blind without a receiver.