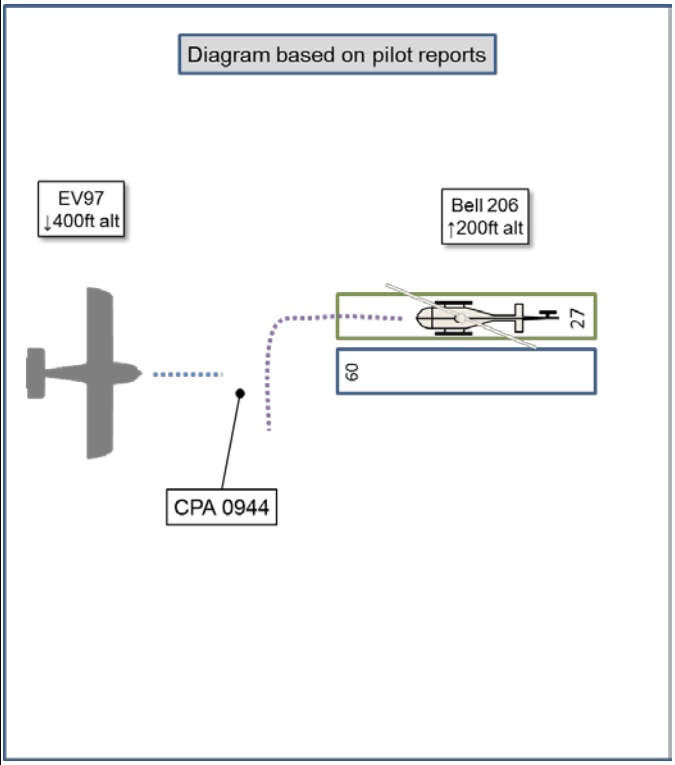
AIRPROX REPORT No 2015187

Date: 10 Oct 2015 Time: 0947Z Position: 5214N 00252W Location: Shobdon

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Eurostar EV97	Bell 206
Operator	Civ Trg	Civ Comm
Airspace	Shobdon ATZ	Shobdon ATZ
Class	G	G
Rules	VFR	VFR
Service	Information	Information
Provider	Shobdon Information	Shobdon Information
Altitude/FL	NK	NK
Transponder	A, C	A, C
Reported		
Colours	Silver, Blue	Red, Black
Lighting	Strobes, landing	Anti-coll, nav
Conditions	VMC	VMC
Visibility	10km	10km
Altitude/FL	400ft	200ft
Altimeter	QNH (1011hPa)	QNH (1011hPa)
Heading	090°	180°
Speed	70kt	60kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	200ft V/3-400m H	250ft V/600m H
Recorded	NK	



THE EV97 PILOT reports that he was conducting a biennial check flight in a privately owned aircraft; the pilot under training was handling the controls and also the radio. After establishing on approach to RW09, but before a final call had been made, the FISO advised that a helicopter was departing from RW27. The student handled the controls whilst the instructor looked for the traffic. Despite the calls from the FISO they were unable to see the traffic until it turned onto a southerly heading. A decision not to go around was made because of the possibility of losing forward visibility due to the altitude change and the unknown position of the helicopter. At the point that they saw the traffic they were 400ft above the ground and the helicopter was about 400m away. The approach was continued without any further deviation.

He assessed the risk of collision as 'Medium'.

THE B206 PILOT reports that he was given the airfield information and acknowledged that it was RW09 in use, he then departed from RW27 by mistake, realising very shortly after take-off. He commenced a turn towards a southerly heading to follow the noise abatement procedure for RW27, then saw the aircraft on final approach to his right and decided to continue the turn onto south to ensure that there was no conflict.

He assessed the risk of collision as 'Low'.

THE SHOBDON AFISO reports that the B206 pilot booked out on the radio, airfield details were passed, including RW09RH, and the helicopter was instructed to lift and air taxi to holding point X. Details were read back correctly including the runway in use. The EV97 was re-joining the circuit from a local flight and airfield details were passed, again stating that RW09RH was in use. The B206 pilot reported at holding point X ready for departure, was given the instruction "take-off at your discretion" and the surface wind passed. The helicopter entered the runway facing west (in the

RW27 direction) and began to accelerate. The AFISO advised the pilot that RW09 was in use; the pilot acknowledged but continued to take-off and depart RW27. At this point the EV97 was established on final. The AFISO made multiple calls advising the EV97 of the rotary that had departed from RW27 and was now heading towards them, the B206 pilot was also advised about traffic on final for RW09. The EV97 pilot eventually reported visual and landed safely.

Factual Background

The weather at Birmingham was recorded as follows:

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METAR EGBB 100920Z 03004KT 360V070 7000 SCT026 10/09 Q1022=
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The access point used by the helicopter, known as Point X (X-Ray), and which is not marked on the Shobdon Airfield Chart, was confirmed by a member of Shobdon ATC and is shown at Figure 1.

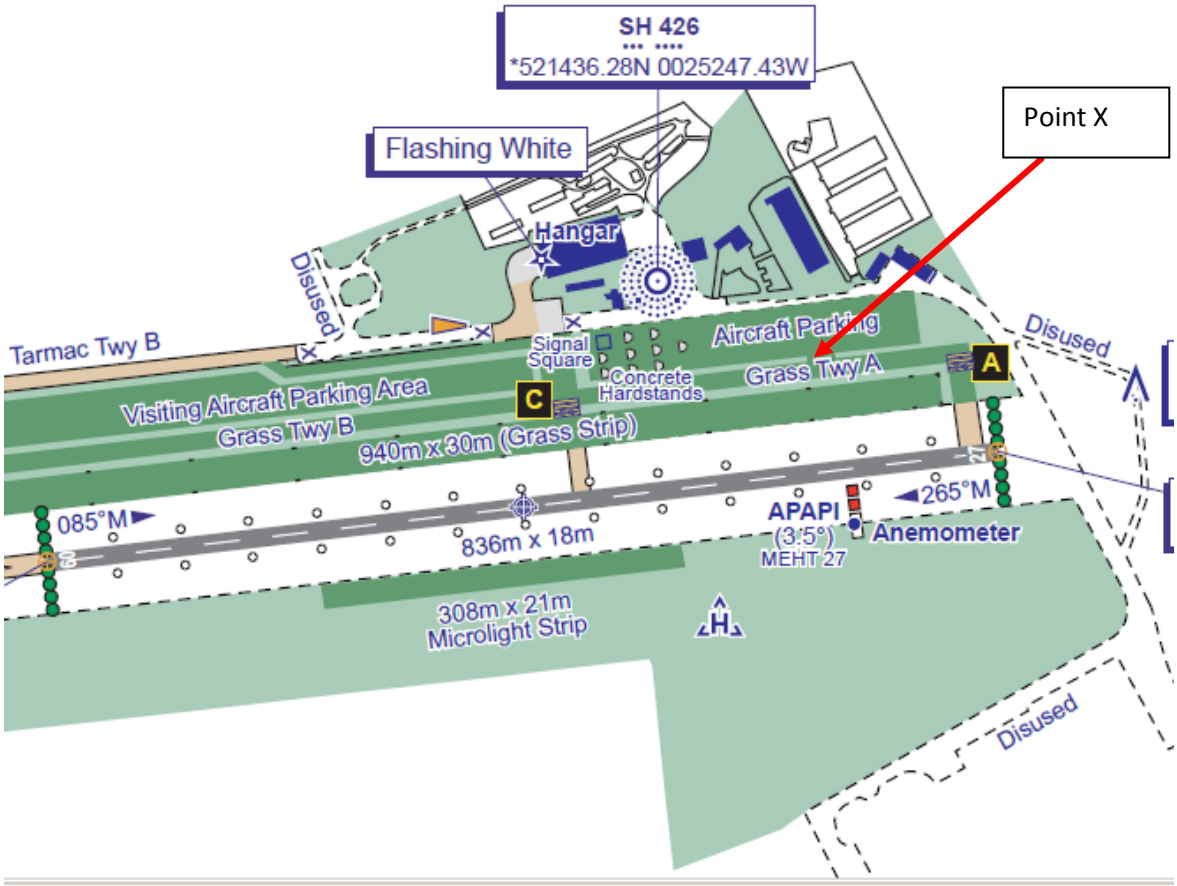

Figure 1. Shobdon Airfield Chart showing position of Point X-Ray

Analysis and Investigation

CAA ATSI

The radar recording did not show the aircraft. All times are referenced against the RT transcript.

The EV97 pilot was inbound to Shobdon from the northwest, and had requested and been approved for an overhead join for RW09 with a touch-and-go on arrival. The B206 pilot had called for taxi clearance for a departure to the west-northwest and had been cleared to a position midway on Grass Taxiway A for a RW09 departure which was read back correctly.

At 0945:11, the EV97 pilot, having completed an overhead join, reported on (right) base for RW09 and was told to report on final. At 0945:31, the B206 pilot was given the north-side grass runway for departure which was acknowledged. At 0945:50, the AFISO reminded the B206 pilot that it was RW09 which again was acknowledged. The AFISO reported that this was as a result of seeing the helicopter entering the runway but facing west and then accelerating.

At 0946:00, the AFISO passed Traffic Information on the B206 to the EV97 pilot advising that it was departing RW27. The EV97 pilot, after some hesitancy, acknowledged that it was an opposite-end departure. At 0946:29, the B206 pilot was advised that there was traffic on final approach for RW09, which was acknowledged. At 0946:36, the AFISO asked the EV97 pilot if he was visual with the helicopter, but the reply was garbled due to two coincidental transmissions from both pilots. At 0946:48, the EV97 pilot confirmed that he was visual with the B206.

UKAB Secretariat

The EV97 and B206 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 operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation … land and take off into the wind unless safety, the runway configuration, or air traffic considerations determine that a different direction is preferable[2].

Occurrence Investigation

An investigation at the unit reviewed the RT recordings and confirmed that the correct procedures were followed by the AFISO. The incident was discussed at the Airfield Safety Review Group where various actions were agreed, including issuing a memo to all department heads to reinforce the critical importance of inter-department communication during and after such incidents. Some remedial actions were also implemented by the Helicopter Company.

Helicopter Operating Authority

The Helicopter Operating Authority reports that the pilot was de-briefed and stated that he heard and acknowledged the radio calls stating RW09 was in use, but a lapse in concentration caused him to line-up and depart from RW27, which had been used predominately during his training. The Head of Training decided to give the pilot ground instruction and remedial training on airfield operations at Shobdon; scheduled the next sortie to be a dual instruction sortie for the pilot to practise arrival and departure procedures; and placed a diagram on the safety board to ensure all pilots flying company aircraft were fully aware of the correct arrival and departure procedures.

Summary

An Airprox was reported when an EV97 and a B206 flew into proximity at 0947 on Saturday 10th October 2015. Both pilots were operating under VFR in VMC; the EV97 pilot was conducting an approach to RW09 when the B206 pilot mistakenly departed from the reciprocal RW27. Both pilots were receiving an Aerodrome Flight Information Service from the Shobdon FISO.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies reports from the AFISO involved and reports from the appropriate ATC and operating authorities.

The Board first looked at the actions of the B206 pilot. Having been given the runway in use by the AFISO, he clearly did not assimilate this information because he lined-up in the opposite direction.

[1] SERA.3205 Proximity.
[2] SERA.3225 Operation on and in the Vicinity of an Aerodrome.

For some reason, perhaps because of habitual use of RWY27, task saturation or because he was departing to the west-northwest, he had set his mental model that the westerly runway was in use. Even though the AFISO confirmed again that RW09 was in use as he saw the B206 accelerate during his take-off, the pilot acknowledged but still did not absorb the runway direction and continued. Once he had taken off on the opposite runway, and even though the AFISO told him about the inbound traffic, he still did not seem to realise the imminent danger of the on-coming traffic. Members noted that the pilot himself couldn't say why he had not assimilated the runway direction; the Board could only surmise that confirmation bias had led him to act in accordance with the mental model that he had set. Notwithstanding, having noticed his error very soon after take-off, the Board wondered why he had then decided to turn across the EV97's path when he had time to flare and abort his take-off, move away from the runway (possibly coming to a hover to the north of the runway) and wait for the EV97 to land. Instead, he continued with the noise abatement procedure for RW27, which turned him across the path of the EV97 that was landing on the main runway.

Turning to the EV97 pilot, the Board noted that he was conducting a flight check and, as such, was probably focused on what his student was doing. Having been told of the departing B206 by the AFISO, the Board wondered if he had also assimilated the seriousness of the situation. It was a finely balanced decision about whether immediately to go around (and hence reduce the chance of sighting the B206 but sidestep to the right and climb away from its departure track) or continue and try to spot the B206 on a reciprocal track (and hope that the sighting was made in enough time, head-on, to effect some form of avoidance with the limited manoeuvrability he had at approach speed). Members discussed the merits of both options but were hesitant to come to any conclusions given that the exact circumstances at the time would weigh heavily on any decision. As it happened, luckily the B206 was spotted as it turned in front of the EV97 on the noise abatement procedure, and the EV97 pilot was able to assess that there was then no further confliction.

Finally, the Board discussed the actions of the AFISO. They acknowledged that, under the responsibilities of a FISO, he was not supposed to issue direct instructions to pilots. He had made two calls to alert the B206 pilot to his mistake, including one as he saw the helicopter line up in the wrong direction, but some members wondered whether a definite 'stop' call over the RT would have brought the helicopter pilot to his senses. The Board agreed that this would be very unusual and outside the remit of an AFISO, but sometimes safety had to take precedence if an unfolding incident could be stopped early. That was not to criticise the AFISO in any way, the Board acknowledged that he had done everything he should have done within the limits of his responsibilities, and they commended him for his persistence once he saw that the Bell 206 pilot had taken off on the wrong runway. Ultimately, the AFISO had passed timely Traffic Information to the EV97 pilot and continued to update both pilots until they reported visual with each other as he did his best to assist in resolving a situation that was beyond his control.

Turning to the cause, the Board agreed that it was that the B206 pilot had got airborne from the reciprocal runway and into conflict with the EV97. They assessed that there were also contributory factors in that the B206 pilot had not assimilated that RW09 was in use, despite being informed repeatedly, and that he had not assimilated that the EV97 was approaching RW09. In determining the risk, the Board noted that the B206 had passed 400-600m ahead of the EV97, that the pilots had reported the risk as low/medium, and that the EV97 had deemed that no avoiding action was necessary as the B206 crossed his nose; therefore, the Board assessed the risk as Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Bell 206 pilot got airborne from the reciprocal runway and into conflict with the EV97.

Contributory Factors: 1. The B206 pilot did not assimilate that RW09 was in use, despite being informed repeatedly.

2. The B206 pilot did not assimilate that the EV97 was approaching RW09.

Degree of Risk: C.