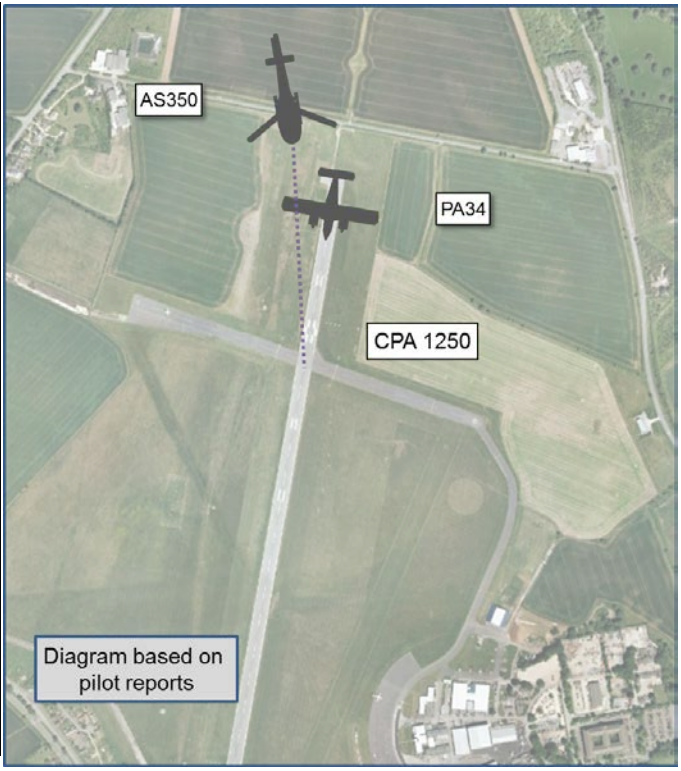
AIRPROX REPORT No 2015199

Date: 31 Oct 2015 Time: 1250Z Position: 5150N 00119W Location: Oxford Kidlington

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA34	AS350
Operator	Civ Trg	Civ Pte
Airspace	Oxford ATZ	Oxford ATZ
Class	G	G
Rules	IFR	VFR
Service	Aerodrome	Aerodrome
Provider	Oxford	Oxford
Transponder	A,C	A,C
Reported		
Colours	NK	Black
Lighting	NK	NK
Conditions	VMC	VMC
Visibility		
Altitude/FL	On the runway	100ft
Altimeter	QNH (1021hPa)	QNH
Heading	190°	190°
Speed	-	65kt
ACAS/TAS	Unknown	Not fitted
Separation		
Reported	30ft V/0m H	NR
Recorded	NK	



THE PA34 PILOT reports that he was an instructor on a training flight; they were cleared to line-up on RW19 and subsequently cleared for take-off. He heard a helicopter call for join, and heard it being told to report right base for RW19. They completed their back-track of the runway and turned to line-up. He believed he heard the helicopter pilot report right base and subsequently being told to report final. Checks were completed and they began their take-off run, increasing to full power. As they achieved full power, the helicopter flew directly overhead at about 20-30ft. The instructor called 'stop' and the student immediately brought the aircraft safely to a stop. Subsequent discussion with the controller revealed that the helicopter had been warned about traffic on the runway to depart, but had continued his approach. He believed that had he not acted as quickly as he did, there would have been a collision.

THE AS350 PILOT reports that he was given clearance to land on RW19. The fixed-wing aircraft had back-tracked and was stationary on the 'run part' before the threshold; he did not hear a take-off clearance being given to the fixed-wing aircraft, so landed on the intersection between 'Delta' and 'Charlie' and was told to vacate via 'Bravo'. He then heard the other pilot on the radio saying he wanted to report his landing. After shutting down he called ATC, who told him he would need to wait to see whether the other pilot wished to file a report. He had the fixed-wing aircraft in sight at all times and thought that there was no risk of collision. He felt this was an Air Traffic issue, not an Airprox.

He assessed the risk of collision as 'None'.

THE OXFORD CONTROLLER reports working as the APP/ADC combined. The AS350 pilot called inbound and was asked to report 5 DME, which he subsequently did; he was then asked whether he wanted to join for the runway or the airfield boundary. He chose the runway, and was told to report final. Meanwhile the PA34 pilot had called ready for departure, he was initially held at the holding point, but was then given back-track and line-up. As he entered the runway he was given a take-off clearance. The AS350 pilot then reported final and was told to continue the approach. The helicopter appeared to continue to very short final, so the controller confirmed that he was continuing the

approach with an aircraft on the runway that had been cleared for take-off. The pilot said that he was nearly at the threshold, so the controller managed to cancel the take-off clearance just as the PA34 was starting to roll and the helicopter broke left to his parking. The PA34 was then given take-off clearance again. The AS350 pilot subsequently telephoned and said that he saw the aircraft on the threshold, but didn't think that it was actually on the runway, and hadn't heard the take-off clearance.

Factual Background

The weather at Oxford was recorded as follows:

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METAR EGTK 311220Z 13006KT 7000 SCT009 BKN010 13/11 Q1021=
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At figure 1 is a plan of the Oxford/Kidlington airfield depicting points 'D', 'C' and 'B'.

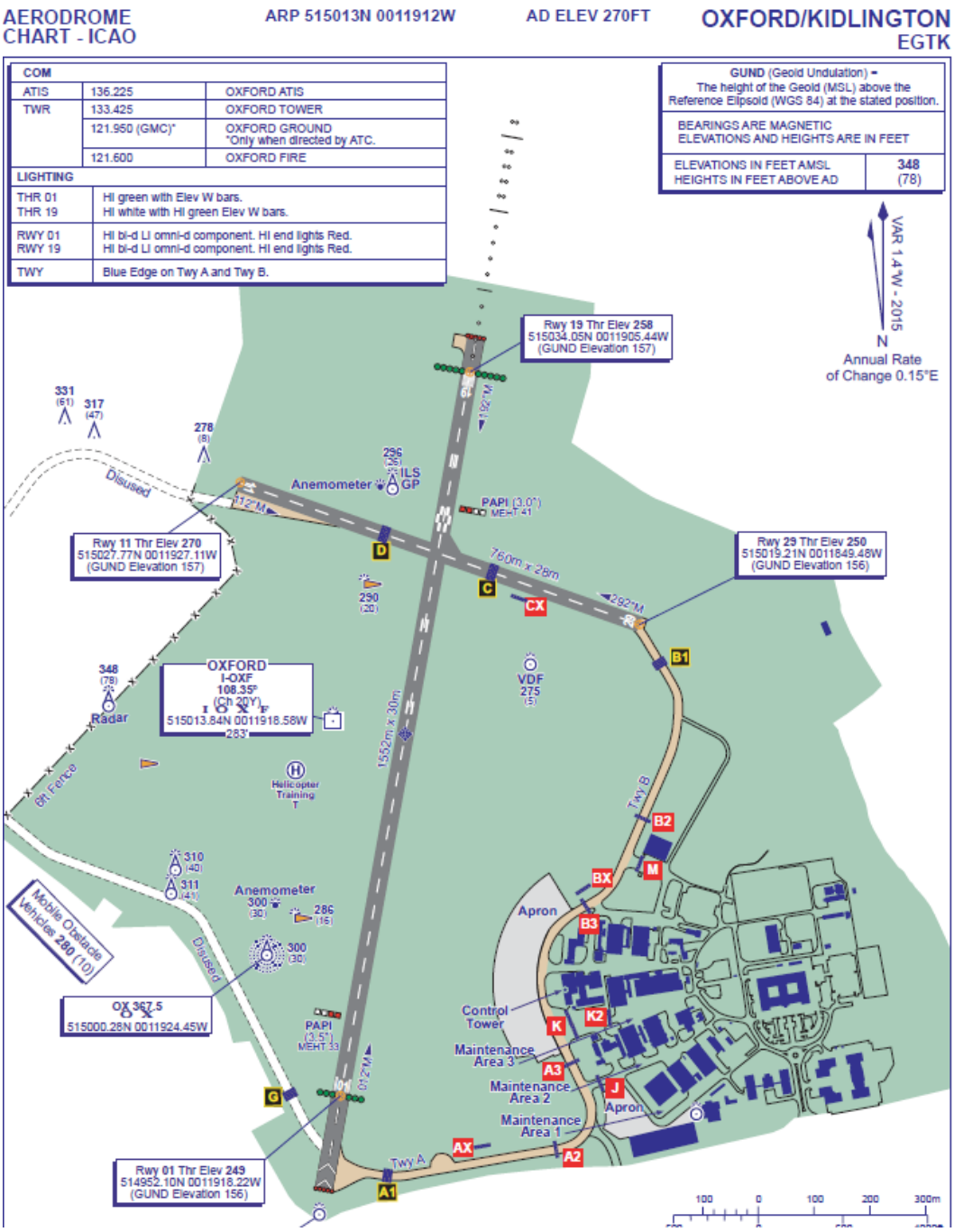

Figure 1.

Analysis and Investigation

CAA ATSI

CAA ATSI had access to RTF recording, together with the written reports from the pilot of the PA34 and the Oxford tower controller. A local unit investigation was also available. CAA ATSI interviewed the Oxford Tower controller.

The PA34 pilot was on an IFR clearance about to get airborne to commence a training detail to land again at Oxford; he was in receipt of an Aerodrome/Approach Control Service from Oxford Tower on frequency 127.750MHz. The AS350 pilot was operating VFR on a flight to Oxford, and was also in receipt of an Aerodrome/Approach Control Service from Oxford Tower on the same frequency. The Oxford Tower controller was a valid controller with over 20 years' experience, and had been in the operational position for about 30 minutes prior to the occurrence. The controller reported being well rested prior to commencing a normal operational shift.

At 1232:42, the PA34 pilot requested taxi clearance, which was approved by ATC to holding point 'C' for RW19. Ten minutes later, Oxford Tower issued a departure clearance to the PA34. At 1242:55, the AS350 pilot made the initial call to Oxford Approach, a Basic Service was agreed and he was requested to report with 5 miles to run to Oxford.

The controller received a phone call from Brize Radar at 1244:30 to coordinate an inbound jet aircraft to Oxford. During this coordination other radio calls were handled, which prolonged the telephone coordination. The telephone call was eventually concluded at 1245:28. At 1245:30 the AS350 reported at 5 miles and the controller asked the pilot if he intended routing to the runway or the airfield boundary, to which the pilot replied he'd like to route direct to RW19.

The PA34 pilot reported ready for departure at 1245:50 and was initially told to hold position but, shortly afterwards, was instructed to enter the runway to back-track, line-up and wait. Whilst entering the runway, a revision to the clearance was issued. The PA34 was then cleared for take-off at 1246:35 whilst still carrying out the back-track.

At 1247:30 the AS350 reported finals for RW19 and the pilot was instructed to continue approach. The pilot however read back "cleared approach". The controller immediately challenged the read-back and repeated the instruction to continue approach "with aircraft on the runway". At 1248:00 the AS350 pilot correctly read back the clearance but now reported at the threshold for RW19. The controller immediately cancelled the take-off clearance for the PA34, who had just begun the take-off roll, just as the helicopter overflew him. The AS350 was instructed to route direct to the hangar via the Bravo taxiway.

The controller was operating as both the Aerodrome and Approach controller. At interview the controller stated that during weekdays the function is normally split but at weekends Aerodrome and Approach were often combined due to staffing restrictions (this event occurred on a Saturday). Although the ATM was functioning, the controller did not use it to help assess the separation, because he had seen the helicopter from the VCR and judged that there would be sufficient time ahead of the helicopter's arrival to allow the PA34 to depart. The controller stated that it was normal for aircraft such as the PA34 to take a back-track from this holding point. The telephone call from Brize Radar took longer than anticipated and impacted on the workload the controller had to cope with. The inbound jet aircraft being pre-noted by Brize Radar required training and had been the subject of discussion between another controller and the aircraft operator prior to the occurrence. This other controller, and the ATSA, were present in the tower at the time of the Airprox and were engaged again on the telephone with the aircraft operator. The active controller had an interest in the outcome as it would dictate how the aircraft was handled by ATC, and was therefore being distracted.

Helicopter traffic familiar with Oxford is routed to grass areas east or west of the runway (although there is no dedicated landing area for helicopters). However, this helicopter was expected to use the runway, and the controller admitted that more positive instructions given to the pilot would have assisted in its integration with the departing PA34.

The controller was expecting the AS350 to report finals at around 2 miles, in a similar manner to a fixed-wing aircraft, rather than route direct to the threshold of the runway. He did not monitor the approaching AS350 so that when he saw it again (as the pilot reported at the threshold) there was not sufficient time to issue instructions to the helicopter to retrieve the situation, although cancelling the take-off clearance to the PA34 was considered appropriate action. Although the PA34 pilot acknowledged the instruction to cancel the take-off clearance, it was apparent that the pilot had already seen the helicopter overfly and had aborted his take-off anyway. During a later conversation with ATC, the helicopter pilot admitted that he was confused by the PA34's position. Although he had seen it, he didn't think it was on the runway and had neither heard it being cleared for take-off nor acknowledged the controller's information about the presence of traffic on the runway.

Following the event, the ATSU conducted its own investigation and made some recommendations of its own. Measures are being taken to prevent staff taking breaks in the VCR and also a recommendation has been made to the Airport Authority to review the facilities available for landing helicopters. A more robust method of obtaining the requirements of inbound traffic long before the aircraft arrives is also being investigated.

UKAB Secretariat

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[1]. A flying machine or glider must not land on a runway at an aerodrome if there are other aircraft on the runway….unless otherwise authorised by ATC.[2]

Summary

An Airprox was reported when a PA34 and an AS350 came into proximity at 1250 on Saturday 31st October 2015. Both pilots were operating under VFR in VMC, the PA34 pilot was on RW19 at Oxford in and the AS350 pilot was on final approach in the Oxford visual circuit, both pilots were in receipt of an Aerodrome Service from Oxford.

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 air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board first looked at the actions of the AS350 pilot. He had called Oxford ATC for a visual approach, was given a joining clearance and, after establishing that he wanted to use the runway to land, was told to report finals. When he subsequently called finals, members noted that he was told to continue only; even if the PA34 had not been present, without further ATC clearance to use the runway he was required to go around. Helicopter members opined that he could have either slowed down or gone around anytime up to the runway threshold, giving him plenty of scope to avoid the incident. Furthermore, Board members felt that even if he didn't think the PA34 was using the runway, it was poor airmanship to overfly the aircraft; had it been a high-wing light-aircraft, the rotor down-wash could easily have flipped it over.

As for the PA34 pilot, the Board agreed that there was very little that he could have done differently in the circumstances. He wouldn't have seen the AS350 until it passed overhead, and he had no way of

[1] SERA.3225 Operation on and in the Vicinity of an Aerodrome.
[2] Rules of the Air 2015 Section 3, para 10.

knowing that it was approaching from behind. Although the controller reported that he had cancelled the PA34 take-off clearance, the PA34 pilot didn't recall this, and it was likely that he had already reacted by calling for his student to make the emergency stop.

Turning to the Controller, the Board thought that to a certain extent he had allowed himself to become distracted by the inbound non-airprox jet aircraft and the associated protracted telephone call with Brize Norton. ATC members opined that, as a result, he had not monitored the approaching AS350 sufficiently. Once he had cleared the PA34 to back-track, ATC members thought that the timing was always going to be tight against the AS350; whether he expected the helicopter to call finals further out or not, they thought that he should have been alert to this fact and should have been closely monitoring the positioning of the AS350 either on his ATM or visually. By doing so, once he had realised the AS350 wasn't going to get his approach to the runway, he could then have taken positive control and offered the grass strip as an alternative. Ultimately, members thought that by not sufficiently prioritizing his attention to the AS350, the controller had reduced his ability to influence the unfolding events. The Board were heartened to note that Oxford had taken steps to ensure that distractions within the VCR were to be minimised in future.

In looking at the cause of the Airprox, the Board quickly agreed that it had been that the AS350 pilot had landed without clearance on an occupied runway. There followed a discussion about the part that the controller had played, and it was agreed that a contributory factor had been that he had not sufficiently monitored the AS350's approach. Turning to the risk, the incident had not shown on the NATS radar so the Board were without the benefit of precise radar data. Nevertheless, they noted that the PA34 pilot had reported that the helicopter was only 30ft away as it flew overhead and he aborted his take-off; although the PA34 pilot had taken action to avoid collision, the Board agreed that chance had played a major part in the event and that the incident should be assessed as Category A.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The AS350 pilot landed without clearance on an occupied runway.

Contributory Factor: ATC did not sufficiently monitor the AS350 pilot's approach.

Degree of Risk: A.