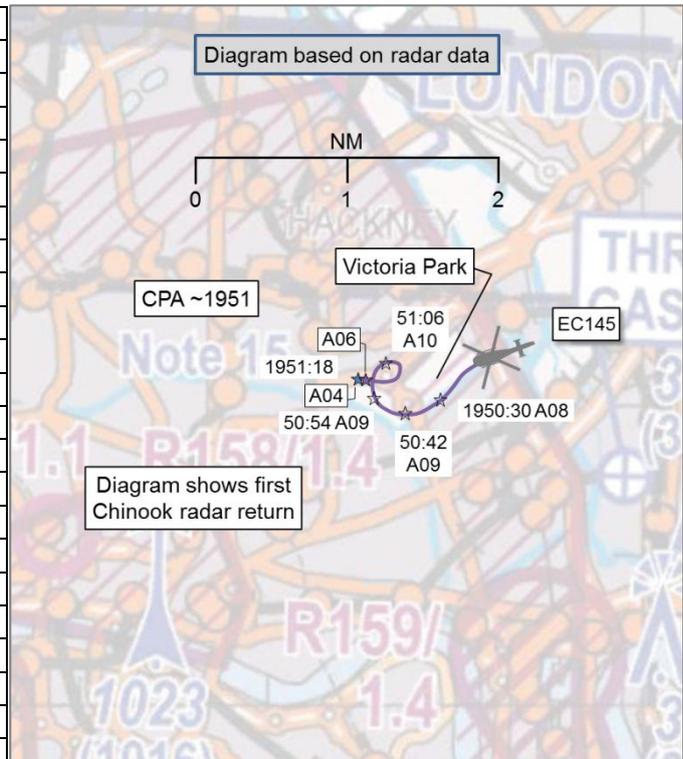


AIRPROX REPORT No 2015069

Date: 21 May 2015 Time: 1951 (Twilight) Position: 5132N 00004W Location: Victoria Park London

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Chinook	EC145
Operator	HQ JHC	NPAS
Airspace	Lon City CTR	Lon City CTR
Class	D	D
Rules	VFR	VFR
Service	Aerodrome	Aerodrome
Provider	London City	London City
Altitude/FL	400ft	600ft
Transponder	A/C	A/C/S
Reported		
Colours	NR	Blue/yellow
Lighting	NR	Nav, strobes
Conditions	VMC	VMC
Visibility	50km	>10km
Altitude/FL	300ft	800-1000ft
Altimeter	QNH (1026hPa)	NK
Heading	270°	NK
Speed	NK	NK
ACAS/TAS	Not fitted	TCAS 1
Alert	N/A	Nil
Separation		
Reported	NK V/100m H	0ft V/500m H
Recorded	100ft V/<0.1nm H	



THE CHINOOK PILOT reports that, whilst they were on an approach to Victoria Park Helicopter Landing Site (HLS) in London and turning downwind, a pre-briefed helicopter notified by London City Tower was identified overhead the Olympic Stadium. They considered that this was suitably deconflicted from them and so they continued their approach. On transitioning to the hover (at approximately 40ft) before landing, some light dust was noticed being kicked up by the helicopter's downwash, so an overshoot was initiated by the handling pilot due to concerns with people in the park and the severity of the dust. At this point, the No 1 Crewman called 'Hold, Police helicopter in our 9 o'clock'. Although dust was still being kicked up, the helicopter was held at around 80ft. The Police helicopter flew across their 12 o'clock and into the 3 o'clock, on a reciprocal heading. Deeming that it was clear, and assuming that the Police helicopter was flying away from the Chinook, the handling pilot climbed and transitioned into the 12 o'clock. At around 60kt and 300ft, intending to continue on route, the handling pilot started a right turn to transit towards the next destination, at which point he was told to 'move left, aircraft in their 3 o'clock'. The handling pilot looked right and saw, at approximately 5-6 spans (100m), the same Police helicopter at a similar speed and height, essentially he considered forming on them. Both pilots and a passenger on the Police helicopter were visible and observed to be waving. Its registration was written down. The Chinook was moved left and, at this point, the Police helicopter moved right and away from them. A call was made to London City by the handling pilot to ascertain the police helicopter's callsign. No radio calls had been made between the two pilots until this point. There was very high workload due to landing at Victoria Park HLS inside controlled airspace. No contact had been made by the Police helicopter pilot, and his intentions were not made clear, so his appearance both at the start of the incident and the final stages was a surprise. For Chinook operators, downwash is a major concern, and he felt unable to take the appropriate safety precautions due to the actions of the Police helicopter pilot. The sortie continued without further incident.

He perceived the severity of the incident as 'Low'.

THE EC145 PILOT reports that the Chinook pilot was approaching Victoria Park for a practice approach and, because they were close by and in between active police jobs, they called ATC and the Chinook crew to inform them that they would film the landing site for them to check for obstructions or people in the park on the HLS point. The Chinook pilot's approach was westerly. They positioned well above and behind the Chinook to the east of its position and filmed its approach and high hover. They filmed its departure and, as the Chinook pilot departed its declared westerly departure track, they flew a right-hand orbit to ensure that they remained behind the west-bound Chinook. They remained north and east (right and behind) of its position. They peeled away to the north to depart the area, and the Chinook pilot carried on west-bound. He then made a radio call to the Chinook crew to inform them that if they required the footage they had just taken for their training purposes, please feel free to contact them at their base and they would ensure that it was sent to them. From the Chinook arriving within approximately 3nm of Victoria Park, all three crew members were visual both with the naked eye and on the Police cameras. They were in full visual contact and on camera at all times throughout the encounter. They were in radio contact with Heathrow Radar (he reported) and had clearly stated their intentions to the Chinook crew prior to arrival overhead. They spoke again to the Chinook crew as the EC145 departed to the north but received no reply from them about the video footage. No TCAS TA was received and he considered that at no time were either aircraft on any heading or path that would conflict. No Airprox notification was given over the quiet ATC frequency of 'Heathrow Radar' 125.625 at the time. He did however hear the Chinook crew ask for the callsign of his aircraft once they had cleared to the west.

He assessed the risk of collision as 'None'.

Factual Background

The London City weather was:

EGLC 212020 12012KT 9999 SCT021 09/04 Q1011

London sunset time 21/05/15 was 1954Z.

Analysis and Investigation

CAA ATSI

ATSI had access to the reports from the Chinook pilot and the London City unit report, area radar recordings and transcription of the London City frequencies. Screenshots produced in the report are provided using the area radar recordings. Levels indicated are in altitude.

The Chinook pilot was operating VFR on a local training flight from Odiham to Hendon and was in receipt of an Aerodrome Control Service from London City Tower. The EC145 pilot was operating VFR and had completed a task north of London City Airport and was also in receipt of an Aerodrome Control Service from London City Tower.

At 1944:10 the Chinook pilot contacted London City. He was cleared to route from the west (via the Helicopter Route H4 which follows the River Thames to the Isle of Dogs) and then via the Olympic Park to Victoria Park. The Chinook was squawking the code 7033.

At 1945:30 the EC145 pilot reported completing a task which was just outside the London City CTR and requested a clearance to the Olympic Park. The EC145 pilot was cleared to the Olympic Park and Traffic Information was passed about the Chinook. The Chinook pilot was then given Traffic Information on the EC145. Figure 1 shows their relative positions at this time.



Figure 1 (1945:30).

At 1948:40 the Chinook pilot reported commencing descent into the landing site (Figure 2).

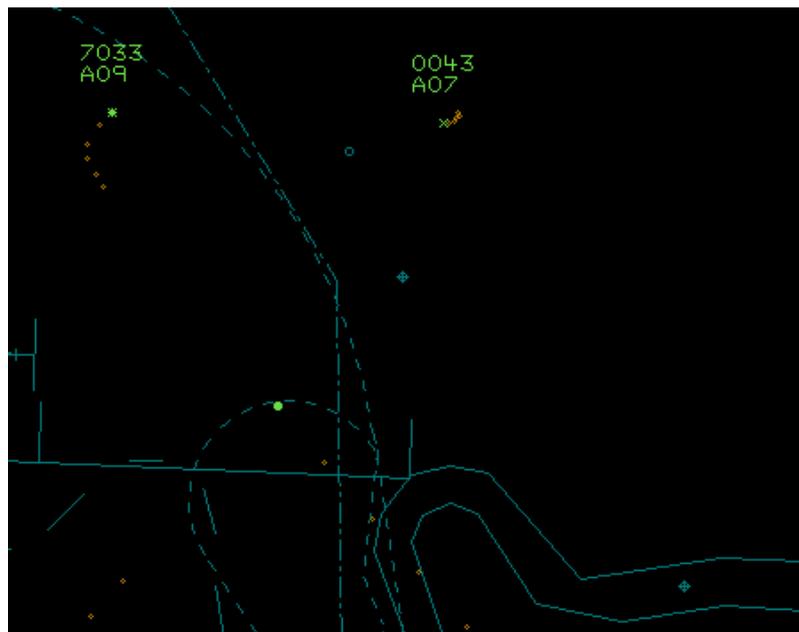


Figure 2 (1948:40).

At 1949:30 the EC145 pilot reported complete at their task and requested to route over to the Chinook's landing area "to get some footage" of it landing. No co-ordination had previously taken place between the pilots but the EC145 pilot confirmed he had the Chinook "fully in sight". The controller cleared the EC145 pilot to Victoria Park. (Figure 3.)

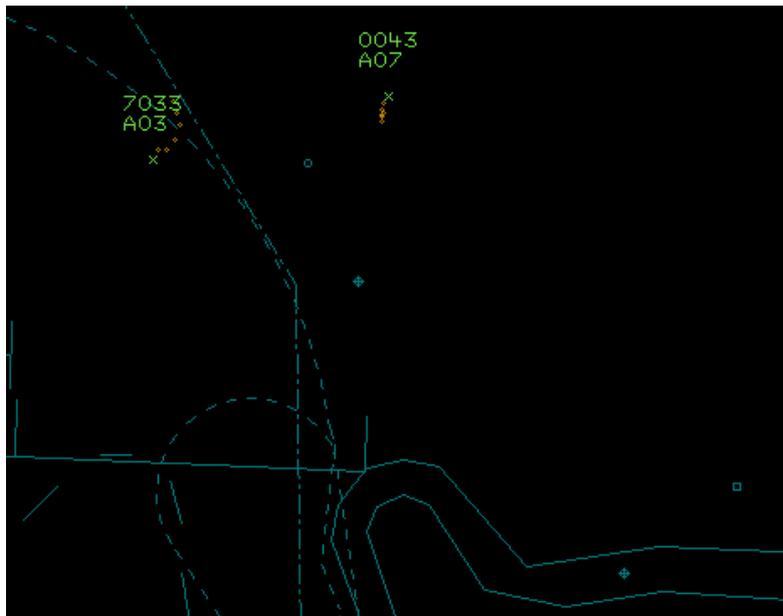


Figure 3 (1949:30)

At 1951:00 the Chinook pilot reported lifting from the landing site and “visual with the Eurocopter”. Figure 4 shows the Chinook and the EC145 just as the Chinook appeared on radar. The Chinook pilot had not actually landed but went into a low hover because he was concerned about personnel on the ground and the amount of dust being created by the downwash from the rotors. The controller cleared the Chinook pilot to depart the CTR to the north VFR.

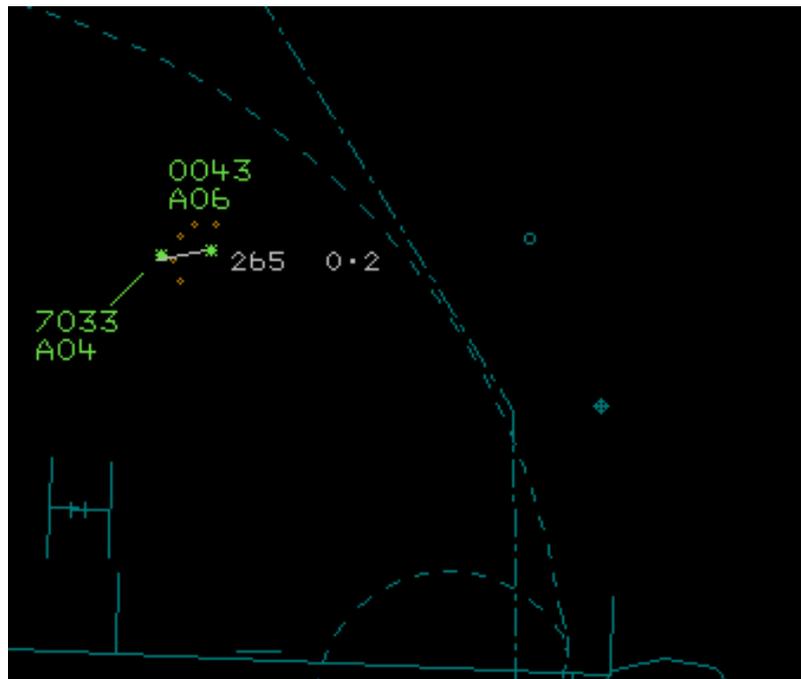


Figure 4 (1951:15).

Figure 5 shows the two aircraft tracking in close proximity to the north-west approximately 100ft vertically apart and less than 0.1nm horizontally.

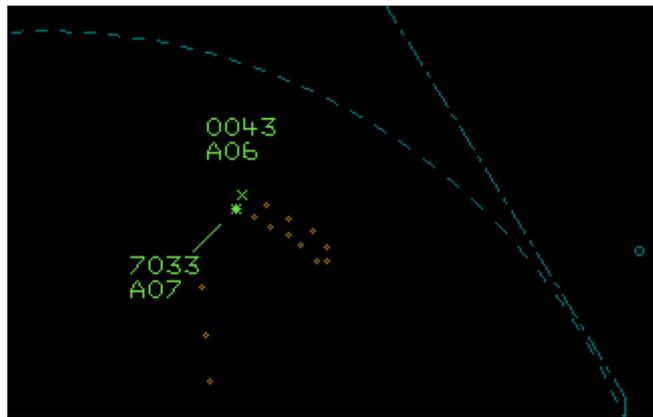


Figure 5 (1951:41).

At 1952:00 the EC145 pilot reported complete following the Chinook and diverged to the north-east. The Chinook pilot departed to the north. There was no mention of the intent to file an Airprox report at the time on the radio but the Chinook pilot did request the callsign of the other aircraft.

It was late evening in the London City CTR, it was still light, and both aircraft were operating VFR and being provided with an Aerodrome Control Service.

When providing an Aerodrome Control Service a controller is responsible for issuing instructions to aircraft under its control to achieve a safe orderly and expeditious flow of air traffic with the objective of preventing collisions between aircraft flying in, and in the vicinity of, the ATZ. However, Aerodrome Control is not solely responsible for the prevention of collisions. Pilots.....must also fulfil their own responsibilities in accordance with the Rules of the Air¹.

The London City controller provided accurate and timely Traffic Information to both pilots prior to the Chinook landing. The controller did not update this Traffic Information.

The Chinook pilot acknowledged the receipt of the Traffic Information from the controller when first issued but did not gain visual contact with the EC145 until lifting from the Victoria Park vicinity, prior to the EC145 pilot apparently operating in close proximity to the Chinook. There was no evidence of any co-ordination between the pilots to fly in formation.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create collision hazard².

With regard to formation flying:

'Aircraft shall not be flown in formation except by pre-arrangement among the pilots-in-command of the aircraft taking part in the flight and, for formation flight in controlled airspace, in accordance with the conditions prescribed by the competent authority.'³

Notwithstanding, for police helicopters:

1) The Civil Aviation Authority, on behalf of the United Kingdom and pursuant to article 4 of Commission Implementing Regulation (EU) No. 923/2012 ('the Standardised European Rules of the Air' (SERA)), exempts the operator and Commander of any aircraft flying in accordance with the terms of a police air operator's certificate from the requirements of SERA specified in paragraph 2 and subject to the conditions in paragraph 3.

¹ CAP 493 Manual of Air Traffic Services Part 1, Section 2, Chapter 1, Paragraph 2.

² SERA.3205 Proximity.

³ SERA.3135 Formation Flights.

2) The specified requirements of SERA in paragraph 1 are:

- a) SERA.3105 (Minimum heights);
- b) SERA.3135 (Formation Flights);
- c) SERA.3210(a) (Right-of-way); and
- d) SERA.5005 (f) (Visual Flight Rules).

3) The conditions in paragraph 1 are:

- a) the Commander of any aircraft referred to in paragraph 1 shall only depart from the specified requirements of SERA at paragraph 2 to the extent necessary to achieve the purpose of the flight and in circumstances that render such departure necessary in the interests of safety; and
- b) the operator of the aircraft shall specify in the operations manual the procedures and minima appropriate to police flights.

4) In this exemption 'police air operator's certificate' and 'Commander' have the same meanings as in article 255(1) of the Air Navigation Order 2009.⁴

CAP 493 states the minimum service to be provided by ATC in Class D airspace:

'Pass traffic information to VFR flights on all other flights and provide traffic avoidance advice when requested.'⁵

Occurrence investigation

Transcript of RTF London City Tower:

1945:25

EC145 Radar... err sorry City Tower (EC145 C/S).
 ADC (EC145 C/S) pass your message.
 EC145 We're complete here at 123 we've gone back to our original job actually, we've just been called back again Olympic Stadium please.
 ADC (EC145 C/S) roger new QNH 1026 you can route Olympic Stadium.
 EC145 Cleared to the Olympic Stadium 1026 is set thank you (EC145 C/S).
 ADC (EC145 C/S) shortly there's traffic just approaching the Isle of Dogs now it's a Chinook and it's going to be routing northbound shortly Olympic Park for Victoria Park.
 EC145 Looking for the Chinny thank you sir.
 ADC (Chinook C/S) north of you by 5 miles is a Eurocopter operating or will be operating in the vicinity of the Olympic Park currently low level VFR.
 Chinook (Chinook C/S) looking for that traffic.

1948:30

ADC (Chinook C/S) report setting down I'll give you a wind check from here.
 Chinook Tower (Chinook C/S) now letting down at Victoria Park we'll call you on lifting.
 ADC Roger set down at your discretion wind at City is 260 10.
 Chinook: Clear my discretion (Chinook C/S).

⁴ SERA. Exemption E 3931. Operations in Accordance with a Police Air Operator's Certificate.

⁵ Section 1, Chapter 2, Paragraph 2.1.

1949:25

EC145 City (EC145 C/S).
 ADC: (EC145 C/S).
 EC145 Complete here sir we'd just like to route over to Vicky Park we are visual with the Chinook landing we're just going to get some good footage of him.
 ADC: (EC145 C/S) Roger Victoria Park it is.
 EC145 With the Chinny fully in sight Vicky Park thank you sir (EC145 C/S).

1950:52

Chinook Err... (Chinook C/S) we're now lifting out of Victoria Park visual with the Police helicopter and departing off to the North Hendon.
 ADC (Chinook C/S) roger lift at your discretion wind at City 260 10 clear to leave the control zone to the North.
 Chinook Clear to leave the control zone to the north (Chinook C/S).
 EC145 On your right hand side.

1951:51

EC145 City (EC145 C/S) that's us complete back to [base].
 ADC (EC145 C/S) roger route direct.
 EC145 Straight to [base] thank you sir (EC145 C/S).

1952:06

Chinook City Tower (Chinook C/S).
 ADC (Chinook C/S) pass your message.
 Chinook [Unreadable]... request the callsign of that Police Helicopter please.
 ADC It's err... (Chinook C/S) it's (EC145 C/S) is the helicopter near you.
 Chinook (EC145 C/S) many thanks (Chinook C/S).

1952:27

EC145 We've got a little bit of recording if you wanted it boys of you coming into your landing site there.
 Chinook (Chinook C/S) err yeah we're not going to be landing till much later we'll give you a call tomorrow.

1953:24

ADC And (Chinook C/S) I understand you're speaking to Heathrow Radar on box 2 you can go to them if you wish.

1953:36

ADC (EC145 C/S) outside the control zone and you can QSY [base] when ready.
 EC145 Back to [base] thank you sir goodbye.

Comments

JHC

Although this Airprox posed little risk of collision, the proximity of the Police helicopter caused the Chinook crew some concern at a time when their capacity was required elsewhere. Without an agreement to formate, it would have been prudent for the Police helicopter to remain further from the Chinook.

Summary

The Airprox was reported by the pilot of a Chinook when his helicopter came into proximity with an EC145 helicopter, whose pilot was observing the Chinook attempt to land, and subsequently depart from, Victoria Park. Both pilots were in receipt of an Aerodrome Control Service, under VFR, within the Class D airspace of the London City CTR. The pilot of the EC145 reported that he had sighted the Chinook early, and had remained visual with it as he manoeuvred into close proximity. The Chinook pilot was surprised to observe the EC145 operating at close range during a particularly complex period of flight. No agreement had been made between the pilots to operate close together. Both pilots were ultimately responsible for their own collision avoidance having been provided with mutual Traffic Information. The minimum separation was recorded as 100ft vertically and <0.1nm horizontally.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from both pilots, area radar and RTF recordings and reports from the appropriate ATC and operating authorities.

The Board first discussed the actions of the EC145 pilot. A Civil Helicopter Pilot member commented that he was surprised that he had positioned close to the Chinook without positively communicating his specific intentions to its pilot. He surmised that the EC145 pilot had probably then been surprised when the Chinook pilot had decided to abort his landing and overshoot, which may have resulted in him then becoming initially closer to the Chinook than he had planned. However, he went on to comment that this would not explain why the EC145 pilot had then subsequently flown alongside the Chinook, in close proximity, without any agreement with its pilot. The Board noted that the EC145 pilot had transmitted his intentions on the radio, and may have thus thought that effectively he had coordinated his activities; however, they cautioned that pilots should not assume that other parties had heard their transmissions without positively confirming that this was the case.

The HQ JHC member explained that the effects of downwash from a Chinook are readily understood, and the Chinook pilot had rightly decided not to land in Victoria Park because of the dust being displaced. He could also understand why the Chinook pilot may not have registered the EC145 pilot's message about proceeding to his vicinity because it had occurred at a very busy time while he had been concentrating on his landing conditions. He also agreed that it would have been prudent for the EC145 pilot to have remained further from the Chinook given that the Chinook pilot's attention would have been focused at the time more on his landing than on avoiding other aircraft.

The Board noted that the London City Aerodrome controller had issued Traffic Information to both pilots about the general position of the other traffic (i.e. the Chinook at Victoria Park and the EC145 at the Olympic Park). Some members wondered whether the controller should then have updated the Chinook pilot that the EC145 was proceeding from the Olympic Park towards his position. However, most members agreed that this was probably not considered necessary by the controller because he knew that the EC145 pilot had the Chinook in sight, and he had no reason to believe that its pilot would have flown into close proximity to the Chinook. A Civil ATC member commented that the controller may also have considered that it would have been inappropriate to have transmitted a message to the Chinook pilot while he was busy in a landing situation.

The Board opined that there had been two phases to this Airprox; first as the Chinook pilot had started his overshoot and became aware of the police helicopter crossing his nose, and then as he had proceeded on course and became aware that the police helicopter was positioned close to his right side. Turning their attention to the cause, it was quickly decided that the EC145 pilot had flown close enough to the Chinook to cause its pilot concern. The fact that the EC145 pilot had not communicated his intentions to the Chinook crew whilst doing so was considered to be a contributory factor. Notwithstanding questions over the wisdom of flying uncoordinated in close proximity, it was considered that, on both occasions, there had been no risk of a collision because the EC145 pilot had remained visual with the Chinook throughout, and the Chinook pilot had seen the EC145 early

enough both as it crossed, and afterwards, in order to avoid it twice after he had cancelled his approach to land. Consequently, the Airprox was categorised as risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The EC145 pilot flew close enough to the Chinook to cause its pilot concern.

Degree of Risk: C.

Contributory Factor: The EC145 pilot did not communicate his intentions to the Chinook crew.