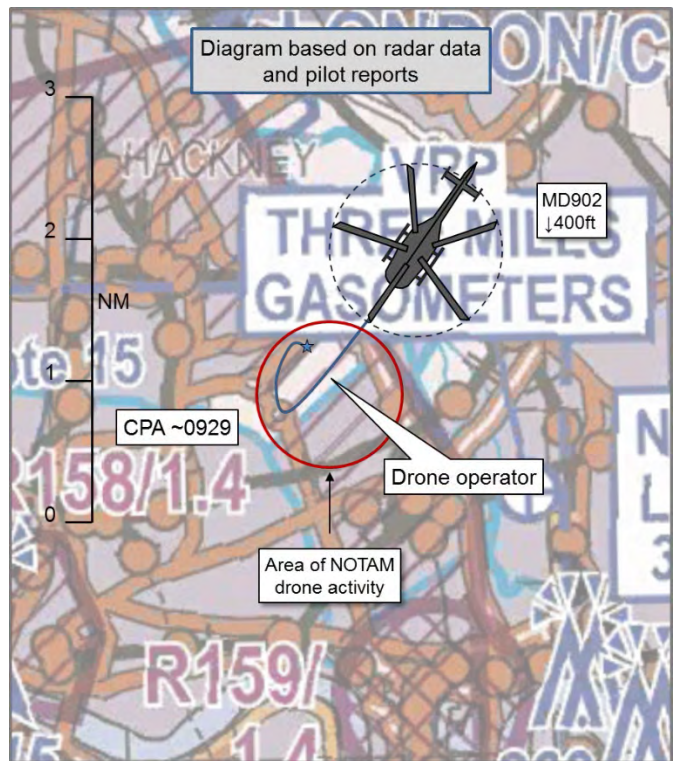


AIRPROX REPORT No 2018118

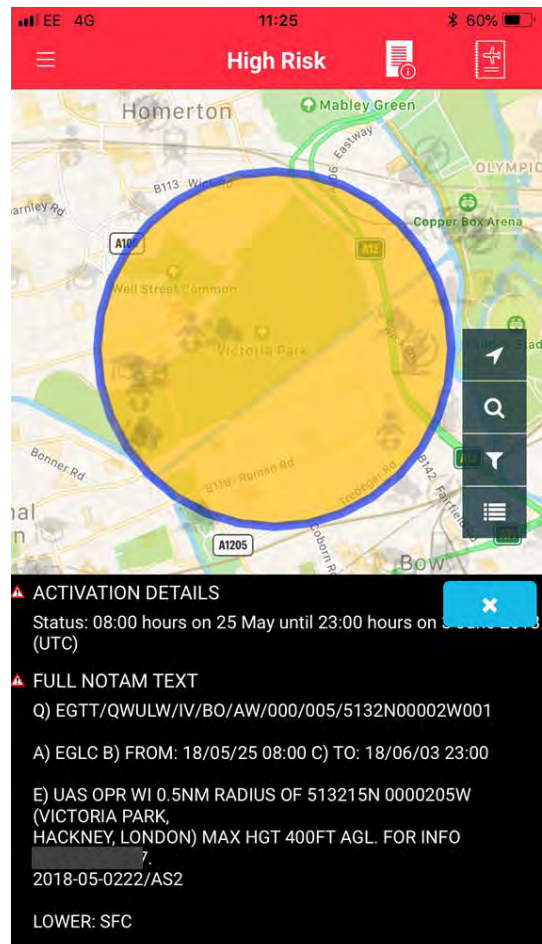
Date: 02 Jun 2018 Time: 0929Z Position: 5132N 00022W Location: Victoria Park, London

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Drone	MD902
Operator	RPAS	HEMS
Airspace	LCY CTR	LCY CTR
Class	D	D
Rules	VFR	VFR
Service	None	Radar Control
Provider		Heathrow Special
Altitude/FL		400ft
Transponder	NA	A,C,S
Reported		
Colours		White/Green
Lighting	NIL	
Conditions	VMC	VMC
Visibility		>10km
Altitude/FL	0ft	700ft
Altimeter	NA	Rad Alt
Heading	NA	
Speed	NA	
ACAS/TAS	Not fitted	TCAS I
Alert	N/A	None
Separation		
Reported	2-300ft	Not seen
Recorded	NK	



THE DRONE OPERATOR reports that he was providing drone services at a music festival within Victoria Park, London. A NOTAM about his activity had been issued, advising that they would be operating up to 400ft and also providing operator contact details. He had his drone motors running and was about to take-off when he saw a helicopter pass overhead from behind at approx. 2-300ft. The helicopter banked and flew over the festival whilst descending and then landed about 75m outside the festival perimeter in an open park. He approached the pilot to explain that he believed there had been a conflict, he wanted to talk to them to see how long they were operating there so he could suspend his flight operations. There followed a very blunt conversation, and it appeared to him that they were clearly not aware of his NOTAM. They then checked it on their tablet and commented that the NOTAM was not good enough because it said drone flights were within 0.5nm of the festival. He told them he thought there had been a risk of collision, and would file an Airprox, to which the helicopter pilot replied that because the drone was not airborne he shouldn't report it. He later learnt that the flight was a training HEMS flight [he believed] and questioned whether it should have been operating at such a low altitude over a festival.



THE MD902 PILOT reports that his HEMS shift started at 0600hrs when he briefed, which included checking NOTAMS, of which there were 13 concerning UAS within the Heathrow and London City zones. During the second mission of the day he was on a Category E flight and the aircraft was positioned from Basildon Park to Victoria Park, near to the Royal London Hospital to pick up some crew. Victoria Park is listed under the company landing site directory, which he stated allows access to HEMS helicopters. A VFR clearance from Heathrow Specials was obtained, and the park was approached from the north-east. An initial high-level recce was conducted at 700ft, covering the majority of the park. A second low-level recce was commenced at 400ft agl, descending to 300ft for a final landing into the HLS; both orbits took about 4 minutes and were to look for any threats to the helicopter either in the approach, or the landing area, and no drone activity was sighted in the air or on the ground. After shutdown, whilst completing the aircraft log, he was approached by a man in a t-shirt saying 'pilot' on the front who announced he 'was going to file'. From the morning brief the MD902 pilot was aware that there was the possibility of a drone in the area, but when questioned the operator admitted that the drone was still on the ground. He commented that the drone operator seemed to be under the impression that the NOTAM provided him with exclusive access to airspace 0.5nm wide within the Victoria park area. The drone operator said that he had been intending to operate in the area and that CAP722 indicated that he must file an Airprox.

He assessed the risk of collision as 'None'.

THE LL SVFR CONTROLLER reports that they were informed of the Airprox some time after the event but had no recollection of the incident.

Factual Background

The weather at London City was recorded as follows:

METAR EGLC 020950Z AUTO 25010G20KT 220V280 9999 BKN017 19/14 Q1018=

Analysis and Investigation

UKAB Secretariat

A CAA web site¹ provides information and guidance associated with the operation of Unmanned Aircraft Systems (UASs) and Unmanned Aerial Vehicles (UAVs). As part of this information, CAP722 (UAS Operations in UK Airspace) and CAP658 (Model Aircraft: A Guide to Safe Flying) provide comprehensive guidance. Additionally, the CAA has published Drone Aware² which states the responsibilities for flying unmanned aircraft. This includes the following comment:

'You are responsible for avoiding collisions with other people or objects - including aircraft. Do not fly your unmanned aircraft in any way that could endanger people or property.'

CAA CAP722 states:

Whether operating within London Controlled Airspace, or in other UK areas of Controlled Airspace (including any ATZ), pilots of SUA in the mass range between above 7 kg and 20 kg must obtain a prior NSF approval from the appropriate Air Traffic Services (ATS) unit. For SUA of any mass, a further Enhanced NSF (ENSF) approval is required for flight in certain restricted areas in Central London. Details of both the NSF and ENSF process can be found at UK AIP ENR 1.1 Section 4. For NSF applications, operators must apply via the National Air Traffic Services (NATS) NSF website at www.nats.co.uk/nsf no less than 21 days in advance of the planned task. The NSF approval process is a mandatory preparatory action and, even when approval has been given, SUA operators must

¹ www.caa.co.uk/uas

² CAP 1202

*establish contact with the appropriate ATS unit on the actual day of operation. At such time, the SUA operator will normally be given a tactical clearance to operate within the limits of their pre-existing NSF approval and advice and information may be provided on the local air situation. This does not absolve the operator from the responsibility for avoiding all other aircraft.*³

CAP 722 Chapter 7 describes incident and Accident Procedures as:

*A **Serious Incident** is defined as: 'An incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked or, in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down.'*

NOTE: The difference between an accident and a serious incident lies only in the result.

*A **Reportable Occurrence** is defined as: 'Any incident which endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person.'*

Summary

An Airprox was reported when a drone and an MD902 came into proximity at 0929hrs on Saturday 2nd June 2018 at Victoria Park, London. The drone operator was intending to film over a music festival and a NOTAM had been issued advising of the activity. The MD902 pilot was operating VFR in VMC and in receipt of a Radar Control Service from Heathrow Specials.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of the MD902 and from the drone operator, radar photographs/video recordings and a report from the air traffic controller involved.

The Board first looked at the actions of the drone operator. He had ensured that he had all of the correct licenses and approvals from the CAA and had submitted a NOTAM for his activity. Members commended him for his thorough preparations but wondered whether he believed that the NOTAM gave him exclusive access to the airspace when in fact it was not segregated airspace, just a warning to other pilots that he was operating in the area. Having seen the MD902 fly over the site and approach to land, it was for the drone operator to avoid the helicopter, which he did by terminating his drone's flight before it got airborne.

Turning to the MD902 pilot, some members initially debated whether he was authorised to land at Victoria park when not conducting an actual emergency task. The Board were informed that the site featured in the company landing site directory, which gave him permission from the landowners to land there and the MD902 pilot stated that he was aware of the NOTAM at the site. The Board noted his comment about there being a large number of drone NOTAMs in the London region, but some members wondered whether he should have contacted the drone operator on the telephone number on the NOTAM, given that he intended to land within the NOTAM area. The MD902 pilot subsequently confirmed that they frequently call such numbers, only to find that either no-one answers or the phone number isn't the one belonging to the operator who is there that day. He opined that this has resulted in a reluctance to waste time calling them when there are so many other tasks to attend to. Although it was not clear that this was the case in this incident, this served as a reminder to drone operators of the importance of ensuring that the published number on any NOTAM was indeed the correct number to call. Finally, some members wondered whether the MD902 pilot was wise to overfly a festival if there

³ CAP 722 Section 1.34

were large numbers of people present, given that he was not on an emergency 'Category A' flight at the time. A subsequent conversation with the MD902 pilot confirmed that the festival was not yet in full swing for the day and there were relatively few people there at the time. [UKAB note: the start time for the festival was 1200L and it was not a camping event so other than festival workers, the area would not be densely populated.] Furthermore, it was a Category E flight, they were landing at Victoria Park to collect crew from the Royal London Hospital, a common occurrence when the helipad at the hospital is already in use.

In assessing the cause and risk, members commented that the barriers and procedures had actually worked as intended in that the drone operator had properly planned and promulgated his activity, the MD902 pilot had conducted a site recce before landing in the knowledge that there might be drones operating in the area, and that the drone operator had acted appropriately by terminating his drone's launch on sighting the helicopter. The Board agreed that this incident represented one in which normal procedures and safety standards had pertained and was probably best described as the drone operator being concerned by the proximity of the MD902; risk Category E.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The drone operator was concerned by the proximity of the MD902.

Degree of Risk: E.

Safety Barrier Assessment⁴

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Crew:

Tactical Planning was assessed as **partially effective** because the MD902 pilot should have called the telephone number for the drone operator as shown on the NOTAM.

Warning System Operation and Compliance were assessed as **ineffective** because the MD902 was not fitted with a CWS that could detect the drone.

See and Avoid were assessed as **effective** because the MD902 pilot flew over the park to look for potential drones and the drone operator saw the helicopter overfly and so did not launch his drone.

⁴ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

