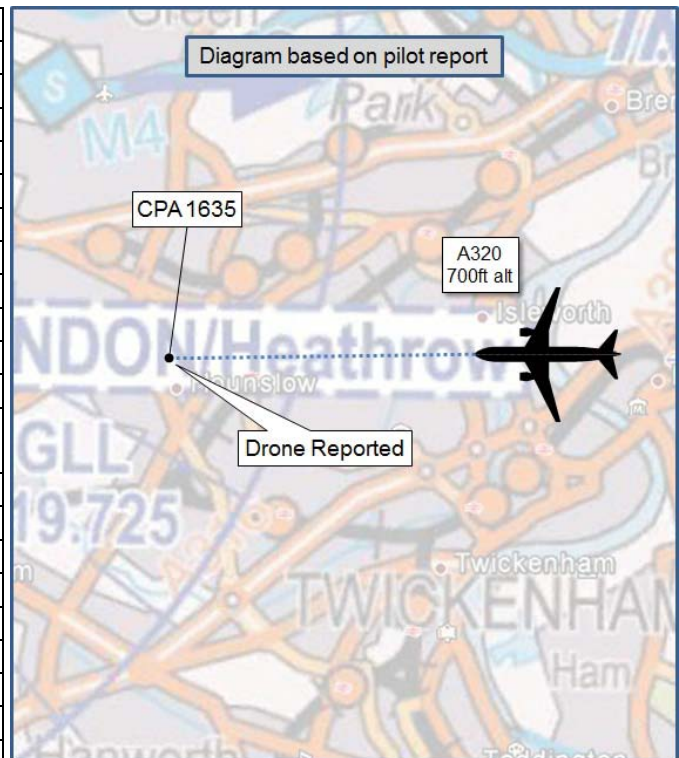


## **AIRPROX REPORT No 2016067**

Date: 03 May 2016 Time: 1635Z Position: 5128N 00022W Location: 2nm E Heathrow

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	A320	Drone
Operator	CAT	Unknown
Airspace	Heathrow CTR	Heathrow CTR
Class	D	D
Rules	IFR	
Service	Aerodrome	
Provider	Heathrow Tower	
Altitude/FL	700ft	
Transponder	A, C, S	
<b>Reported</b>		Not reported
Colours	Company	
Lighting	Nav, Strobe, Beacon	
Conditions	VMC	
Visibility	50km	
Altitude/FL	700ft	
Altimeter	QNH (1026hPa)	
Heading	271°	
Speed	140kt	
ACAS/TAS	TCAS II	
Alert	None	
<b>Separation</b>		
Reported	50-100ft V/100m H	NK
Recorded		NK



**THE A320 PILOT** reports being at approximately 2.2 to 2.5 DME on final approach to RW27L when he saw a drone in the left 11 o'clock position which passed close down the left side of the aircraft and just below. It passed approximately 50 to 100m south of his track and between 50 to 100ft below his altitude. He was the only crew member to see it as it passed down the left side, but it was in sight long enough for him to determine that it was definitely not a bird and positively identify it as a medium-sized drone, predominantly white in colour. It was 'seagull-sized' or possibly slightly larger, and he assessed that it would pass down the left side such that no avoiding action was required in this instance. A safety report was filed on arrival.

He assessed the risk of collision as 'Medium'.

**THE DRONE PILOT** could not be traced.

**THE HEATHROW SUPERVISOR** reports the A320 pilot reported a drone whilst the aircraft was on 2nm final to RW27L. The drone appeared 100ft below and 200ft to the left of the aircraft.

### **Factual Background**

The weather at Heathrow was recorded as follows:

METAR EGLL 031620Z AUTO 30008KT 260V330 9999 NCD 14/02 Q1026 NOSIG

## Analysis and Investigation

### UKAB Secretariat

The Air Navigation Order 2009 (as amended), Article 138<sup>1</sup> states:

‘A person must not recklessly or negligently cause or permit an aircraft to endanger any person or property.’

Article 166, paragraphs 2, 3 and 4 state:

‘(2) The person in charge of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made.

(3) The person in charge of a small unmanned aircraft must maintain direct, unaided visual contact with the aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions.’

(4) The person in charge of a small unmanned aircraft which has a mass of more than 7kg excluding its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight, must not fly the aircraft

(a) in Class A, C, D or E airspace unless the permission of the appropriate air traffic control unit has been obtained;

(b) within an aerodrome traffic zone ...; or

(c) at a height of more than 400 feet above the surface unless it is flying in airspace described in sub-paragraph (a) or (b) and in accordance with the requirements for that airspace.’

A CAA web site<sup>2</sup> provides information and guidance associated with the operation of Unmanned Aircraft Systems (UASs) and Unmanned Aerial Vehicles (UAVs).

Additionally, the CAA has published a UAV Safety Notice<sup>3</sup>, which states the responsibilities for flying unmanned aircraft. This includes:

‘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.

It is illegal to fly your unmanned aircraft over a congested area (streets, towns and cities).

Also, stay well clear of airports and airfields’.

### Summary

An Airprox was reported when a A320 and a drone flew into proximity at 1635 on Tuesday 3<sup>rd</sup> May 2016. The A320 pilot was operating under IFR in VMC in receipt of an Aerodrome Control Service from Heathrow. The drone operator could not be traced.

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

Information available consisted of a report from the pilot of the A320 and a report from the air traffic supervisor involved.

The Board first noted that, as for other aviators, drone operators are fundamentally required to avoid collisions with all other aircraft. More specifically, drone flight above 400ft is prohibited in Class D airspace without the permission of the appropriate air traffic control unit. The crew of the A320

<sup>1</sup> Article 253 of the ANO details which Articles apply to small unmanned aircraft. Article 255 defines ‘small unmanned aircraft’. The ANO is available to view at <http://www.legislation.gov.uk>.

<sup>2</sup> [www.caa.co.uk/uas](http://www.caa.co.uk/uas)

<sup>3</sup> CAP 1202

reported seeing the drone at 700ft, whilst on final approach to Heathrow, and the drone operator was not entitled to operate in this location.

Members therefore agreed that the drone was being operated within airspace that was not open to drone operation and that, in his non-compliance, the Board considered that the drone operator was posing a flight safety risk by flying his drone into conflict with the A320, on final approach to Heathrow. Noting the difficulty in accurately assessing range in these circumstances, but also aware that the object had been close enough for the pilot to positively describe it and identify it as a “seagull-sized, medium-size drone, predominantly white in colour”, the Board felt that the reported separation was such that, at this critical stage of flight, the safety of the aircraft may have been compromised to the extent that safety had not been assured in this incident.

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

Cause: The drone was flown into conflict with the A320.

Degree of Risk: B.