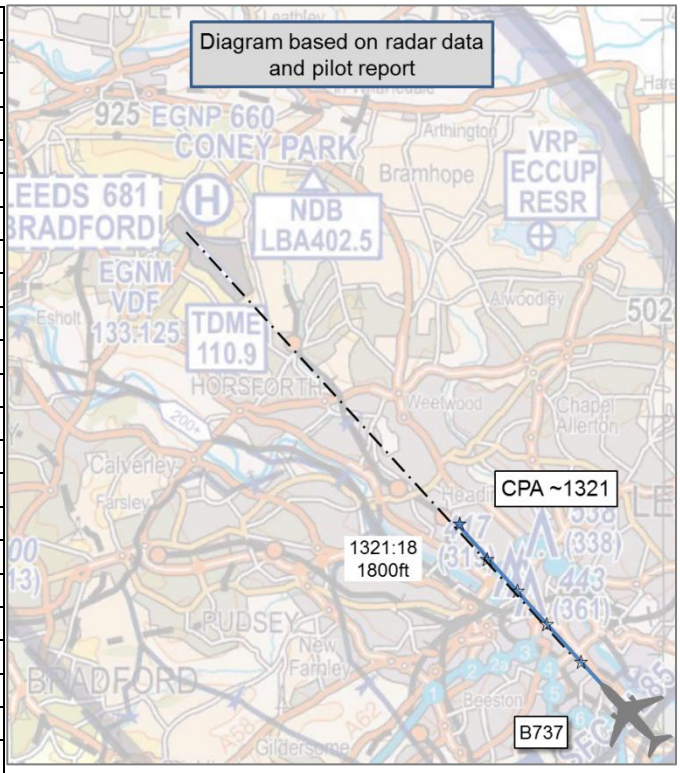
AIRPROX REPORT No 2015109

Date: 9 Jul 2015 Time: 1321Z Position: 5349N 00135W Location: Leeds Bradford (LBA) CTR

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	B737	Drone
Operator	CAT	Unknown
Airspace	LBA CTR	LBA CTR
Class	D	D
Rules	IFR	
Service	Aerodrome	
Provider	LBA Tower	
Altitude/FL	1800ft	
Transponder	A, C, S	
Reported		
Colours	Red/white	
Lighting	NK	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	1800ft	
Altimeter	QNH (1021hPa)	
Heading	320°	
Speed	180kt	
ACAS/TAS	TCAS II	
Alert	None	
Separation		
Reported	300ft V/300m H	
Recorded	NK	



THE B737 PILOT reports fully established on final approach to RW32, passing 1800ft on the ILS. Both crew saw a black and white, 4-rotor helicopter type drone to the left of them. The drone was seen too late to take avoiding action and passed abeam them.

He assessed the risk of collision as 'Medium'.

THE DRONE OPERATOR could not be traced.

THE LBA TOWER CONTROLLER did not file a report.

Factual Background

The weather at LBA was recorded as follows:

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METAR EGNM 091320Z 27011KT 240V320 9999 SCT040 15/13 Q1022=
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Analysis and Investigation

CAA ATSI

Radar replay confirmed that no other contacts were visible in the area.

UKAB Secretariat

The Air Navigation Order 2009 (as amended), Article 138[1] 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[2] 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[3] 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 B737 and a drone flew into proximity at about 1321 on Thursday 9th July 2015. The B737 pilot was operating under IFR in VMC in receipt of an Aerodrome Control Service from LBA Tower. The drone was being operated within the Class D airspace of the LBA CTR without the permission of the ATSU.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the B737 pilot, radar photographs/video recordings and a report from the appropriate ATC authority.

Members noted the requirements of Article 166 of the ANO and the additional CAA material regarding drone operations and quickly agreed that, even had they been operating using first-person view (FPV), the drone operator should neither have allowed the drone to fly above 1000ft nor operate over a built-up area. Therefore, because the drone was being flown inappropriately, they determined the cause of the Airprox to be that the drone had been flown into conflict with the B737. Members then

[1] 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.
[2] www.caa.co.uk/uas
[3] CAP 1202

discussed the risk and, although there was no measurable data available, after some debate, they decided that for the drone to have been identified specifically as a black and white 4-rotor drone this indicated that it was probably closer than the pilots' estimate of 300m. As a result, they considered that, in this case, it was therefore likely that safety margins had been much reduced below the normal and that this was a Category B incident.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The drone was flown into conflict with the B737.

Degree of Risk: B.