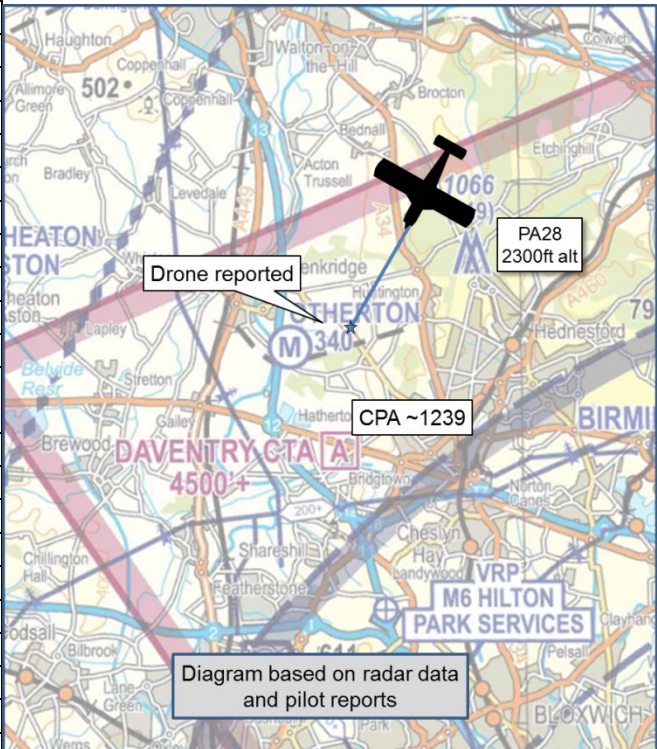


AIRPROX REPORT No 2015177

Date: 4 Oct 2015 Time: 1240Z Position: 5240N 00206W Location: IVO Otherton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------------|-----------------------|--------------|
| Aircraft | PA28 | Drone |
| Operator | Civ Pte | Unknown |
| Airspace | London FIR | |
| Class | G | G |
| Rules | VFR | |
| Service | None | |
| Provider | N/A | |
| Altitude/FL | 2300ft | |
| Transponder | A,C,S | |
| Reported | | Not reported |
| Colours | White, grey, burgundy | |
| Lighting | Strobes, landing | |
| Conditions | VMC | |
| Visibility | 6km | |
| Altitude/FL | 2300ft | |
| Altimeter | QNH (1014hPa) | |
| Heading | 211° | |
| Speed | 125kt | |
| ACAS/TAS | TAS | |
| Alert | None | |
| Separation | | |
| Reported | 0ft V/6m H | |
| Recorded | | NK |



THE PA28 PILOT reports that his passenger, who was looking to the left of the aircraft, saw a drone about 20ft from the wing-tip. It was not known whether the drone was stationary or in forward flight. He reported it was a 'quadcopter type', although the number of rotors could not be determined, 2ft across and red and black in colour. The pilot was looking right and by the time he attempted to locate the drone, it had passed by; the incident happened too quickly for any avoiding action to be taken.

THE DRONE OPERATOR: The drone operator could not be traced.

Factual Background

The weather at Birmingham was recorded as follows:

METAR EGBB 041220Z 16006KT 140V200 CAVOK 15/07 Q1013=

Analysis and Investigation

UKAB Secretariat

The Air Navigation Order 2009 (as amended), Article 138¹ states:

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

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>.

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.

In addition, the CAA has published guidance regarding First Person View (FPV) drone operations which limit this activity to drones of less than 3.5kg take-off mass, and to not more than 1000ft².

Summary

An Airprox was reported when a PA28 and a drone came into proximity at 1240 on Sunday 4th October 2015. The PA28 was operating under VFR in VMC at 2300ft in Class G airspace. 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 PA28 and radar photographs/video recordings.

The Board first noted that, as for other aviators, drone operators are fundamentally required to avoid collisions with all aircraft. In this incident, the crew of the PA28 reported the seeing the drone at 2300ft whilst in the vicinity of Otherton. At this height, the drone operator would almost certainly be operating on first-person-view (FPV), for which regulation mandates that an additional person must be used as a competent observer who must maintain direct unaided visual contact with the drone in order to monitor its flight path in relation to other aircraft. Furthermore, under FPV operations, for drones of less than 3.5kg, the drone is not permitted to operate above 1000ft agl without CAA approval being gained and a NOTAM being issued.

Operating as he was at a level which he was not permitted meant that the Board considered that the cause of the Airprox was that the drone operator had flown into conflict with the PA28. The passenger in the PA28 estimated that the drone was only 6m away, using this estimate as a guide, the Board determined that the risk was Category A, separation had been reduced to the bare minimum and chance had played a major part in events.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The drone was flown into conflict with the PA28.

Degree of Risk: A.

² ORSA No. 1108 Small Unmanned Aircraft – First Person View (FPV) Flying available at: [ORSA No 1108](#).