

Mr D Paulley
request-122704-131c0440@whatdotheyknow.com

2 August 2012
FOIA reference: F0001372

Dear Mr Paulley

I am writing in respect of your recent application of dated 21 July 2012, for the release of information held by the Civil Aviation Authority (CAA).

Your request:

"Please can I ask for the regulations and law relating to the Parrot AR.Drone 2.0".

Our response:

In assessing your request in line with the provisions of the Freedom of Information Act 2000 (FOIA), we are pleased to be able to provide the information below.

The Regulations related to all flying operations within the UK are contained within CAP393 Air Navigation: The Order and the Regulations, specifically the Air Navigation Order 2009 (ANO 2009). I have copied the Articles that specifically apply below for your information.

The overriding/all encompassing Article within the legislation is Article 138, which covers the subject of endangerment and applies to all aviation activity at all times:

Endangering safety of any person or property; Article 138

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

With regard to the operation of UAs at the smaller end of the market, it is the aircraft's mass which is the deciding factor with regard to the permissions/approvals that are required, and 20kg is the significant number. If the mass is above 20kg then there are a number of significant hurdles to jump (particularly with regard to airworthiness) but if it is 20kg or less (which I am assuming is what you are looking at), then it is classed as a 'small unmanned aircraft', for which the requirements are a little less stringent and are covered within Articles 166 and 167 (copied below)

Civil Aviation Authority

Aviation House GW Gatwick Airport South Crawley West Sussex England RH6 0YR www.caa.co.uk
Telephone 01293 768512 rick.chatfield@caa.co.uk

Small unmanned aircraft

Article 166

(1) A person shall not cause or permit any article or animal (whether or not attached to a parachute) to be dropped from a small aircraft so as to endanger persons or property.

(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 7 kg excluding its fuel but including any articles installed in or attached to the aircraft at the commencement of its flight, must not fly such an 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 during the notified hours of watch of the air traffic unit (if any) at that aerodrome unless the permission of any such air traffic control unit has been obtained; 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) above and in accordance with the requirements for that airspace.

(5) The person in charge of a small unmanned aircraft must not fly such an aircraft for the purposes of aerial work except in accordance with a permission granted by the CAA.

Small unmanned surveillance aircraft

Article 167

(1) The person in charge of a small unmanned surveillance aircraft must not fly the aircraft in any of the circumstances described in paragraph (2) except in accordance with a permission issued by the CAA.

(2) The circumstances referred to in paragraph (1) are:

- (a) over or within 150 metres of any congested area;
- (b) over or within 150 metres of an organised open-air assembly of more than 1,000 persons;
- (c) within 50 metres of any vessel, vehicle or structure which is not under the control of the person in charge of the aircraft; or
- (d) subject to paragraphs (3) and (4), within 50 metres of any person.

(3) Subject to paragraph (4), during take-off or landing, a small unmanned surveillance aircraft must not be flown within 30 metres of any person.

(4) Paragraphs (2)(d) and (3) do not apply to the person in charge of the small unmanned surveillance aircraft or a person under the control of the person in charge of the aircraft.

(5) In this article 'a small unmanned surveillance aircraft' means a small unmanned aircraft which is equipped to undertake any form of surveillance or data acquisition.

Interpretation

Article 255

'Small unmanned aircraft' means any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 20 kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight;

It should also be noted that for electrically propelled vehicles, the battery itself is considered to be a part of the aircraft - it is the battery's *charge* that is the fuel. The logic for this is that the battery is basically the 'fuel tank' or, in other words, when the battery has run out of fuel, it still weighs the same.

In addition, we have also published some additional limitations within CAP722, which is the CAA document that deals with the operation of unmanned aircraft within UK airspace, with the significant points being:

- a. The person in charge of the 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*
- b. For an aircraft being controlled in this manner (which is termed 'Line of Sight') the unmanned aircraft should be kept within a distance of 500m horizontally and 400ft vertically of the 'pilot'.*
- c. The flight should not be conducted within a specified distance, normally 150 metres, of any congested area of a city, town or settlement*
- d. The aircraft should not be flown within a specified distance, normally 50 metres, of any person, vessel, vehicle or structure not under the control of the aircraft operator except that during the takeoff or landing an aircraft to which this subparagraph applies shall not fly within 30 metres of any person other than the person in charge of the said aircraft or a person in charge of any other small aircraft or a person necessarily present in connection with the operation of such an aircraft.*

You can gain access to the various CAPs that are mentioned via the CAA's Website on the following links:

www.caa.co.uk/cap393 or www.caa.co.uk/cap722

In essence therefore, provided the aircraft has a mass of 20kg or less, the current regulations state,

1. The operation must not endanger anyone or anything
2. If the flight is to be conducted within 'Controlled' Airspace, or within the ATZ of an airfield (the dimensions of an airfield ATZs vary, but have encompass the airspace within either a 2nm or a 2.5nm radius of the airfield) permission to fly must be obtained from the ATC unit/authority and the flight must be operated in accordance with that permission and any additional restrictions required by ATC. Obviously therefore, there is an inference that the 'pilot' needs to have a degree of awareness about the airspace that he/she wishes to fly in.

3. The aircraft must be kept within the line of sight (500m horiz, 400ft vert) of its pilot'. Operations beyond these distances must be approved by the CAA (the basic premise being for the operator to prove that he/she can do this safely).
4. Small unmanned aircraft (irrespective of their mass) that are being used for surveillance purposes are subject to tighter restrictions, which invariably will require permission from the CAA before operations are commenced
5. CAA permission is also required for all flights that are being conducted for aerial work (ie. you are getting paid for doing it)
6. The 'pilot' has the responsibility for satisfying himself that the flight can be conducted safely

If you are not satisfied with how we have dealt with your request in the first instance you should approach the CAA in writing at:-

Mark Stevens
External Response Manager
Civil Aviation Authority
Aviation House
Gatwick Airport South
West Sussex
RH6 0YR

mark.stevens@caa.co.uk

The CAA has a formal internal review process for dealing with appeals or complaints in connection with Freedom of Information requests. The key steps in this process are set in the attachment.

Should you remain dissatisfied with the outcome you have a right under Section 50 of the Freedom of Information Act to appeal against the decision by contacting the Information Commissioner at:-

Information Commissioner's Office
FOI/EIR Complaints Resolution
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF
www.ico.gov.uk/complaints.aspx

Should you wish to make further Freedom of Information requests, please use the e-form at <http://www.caa.co.uk/foi>.

Yours sincerely

Rick Chatfield
FOIA & EIR Case Manager

CAA INTERNAL REVIEW & COMPLAINTS PROCEDURE

- The original case to which the appeal or complaint relates is identified and the case file is made available;
- The appeal or complaint is allocated to an Appeal Manager, the appeal is acknowledged and the details of the Appeal Manager are provided to the applicant;
- The Appeal Manager reviews the case to understand the nature of the appeal or complaint, reviews the actions and decisions taken in connection with the original case and takes account of any new information that may have been received. This will typically require contact with those persons involved in the original case and consultation with the CAA Legal Department;
- The Appeal Manager concludes the review and, after consultation with those involved with the case, and with the CAA Legal Department, agrees on the course of action to be taken;
- The Appeal Manager prepares the necessary response and collates any information to be provided to the applicant;
- The response and any necessary information is sent to the applicant, together with information about further rights of appeal to the Information Commissioners Office, including full contact details.