Finance and Corporate Services
Information Management

19 October 2012
FOIA reference: F0001405

Dear XXXX

I am writing in respect of your recent application of 24 September 2012, for the release of information held by the Civil Aviation Authority (CAA).

Your request:

a) *How many permits have been issued by the CAA for the civilian use of drones since January 2009?*

b) *Can you provide a list of applicants and permits granted?*

c) *Can you provide a copy of a licence application form and any guidance or advice given to applicants before, during and after the process?*

d) *Can you provide details of any regulations or restrictions on the use of drones once a licence has been granted?*

e) *Can the CAA provide information on the number of drones (unmanned aerial vehicles) crashes since they have required licencing?*

f) *Can the CAA provide information on the development of 'sense and avoid' technology?*

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.

a) Please see the attached table; Permissions are only valid for one year then have to be renewed. Operating permissions were not issued before 2010 when the Air Navigation Order 2009 (ANO) was changed to require operators of Small Unmanned Aircraft (SUA) equipped for surveillance to obtain a CAA permission to operate. Exemptions to allow limited aerial work and research were issued before 2010. Blanket permissions do not have any geographical limit within the UK but only operational limitations in terms of maximum height and range from the operator (visual line of sight), among others.

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

b) We are not able to provide details of individual permission holders and their locations as information which relates to a particular person and which is supplied to the CAA pursuant to the ANO is prevented from disclosure by Section 23 of the Civil Aviation Act 1982. This information is therefore exempt from disclosure under section 44 of the FOIA (a copy of this exemption can be found enclosed).

c) Guidance is provided in CAA Publication CAP 722 *Unmanned Aircraft System Operations in UK Airspace – Guidance*. The purpose of CAP 722 is to highlight the safety requirements that have to be met, in terms of airworthiness and operational standards, before an Unmanned Aircraft System (UAS) is allowed to operate in the UK. It is also intended to assist those who are involved in the development of UAS to identify the route to certification, in order to ensure that the required standards and practices are met by all UAS operators. It is a joint civil/military document, intended to draw together independent civil and military guidance so as to establish best practice for all UAS activities.

The application form for an operational permission SRG 1320 can be found at the following link: http://www.caa.co.uk/docs/33/SRG1320.pdf

d) Restrictions on the use of unmanned aircraft are stated on the permission in accordance with the provisions of CAP 722. Essentially visual line of sight operations (VLOS) are restricted to 400 feet above the surface and within VLOS of the operator (500m) to ensure they remain clear of airspace used by manned aircraft. Operations beyond VLOS are only allowed within segregated airspace such as Danger Areas.

e) Not all accidents/occurrences involving UAS, particularly SUA, are required to be reported under current legislation, however operators are strongly encouraged to do so on a voluntary basis (CAP 722 Sect 3, Ch 9 refers).

Incident reports that are provided to the CAA under the terms of the Mandatory Occurrence Reporting (MOR) scheme, as described under Article 226 of the Air Navigation Order 2009, are reviewed and, where appropriate, further investigation carried out and action taken.

We have searched the CAA's MOR database for all reportable occurrences relating to Unmanned Aerial Vehicles (UAV) which have crashed, and provided a summary of all those reports processed up to and including 27th September 2012 inclusive. No injuries or damage to property (other than the UAS itself) were reported in relation to these accidents.

Section 44 of the FOIA provides that information is exempt information if its disclosure is prohibited by, or under, any enactment. Under Section 23 of the Civil Aviation Act 1982, information which relates to a particular person (which includes a company or organisation) and has been supplied to the CAA pursuant to the ANO is prohibited from disclosure. As such, the summary does not include details such as the operators of the aircraft which are exempt from disclosure.

For more information about the Mandatory Occurrence Reporting scheme, please refer to CAP382 which can be found at: www.caa.co.uk / publications

f) The development of a 'sense and avoid' (now referred to as 'Detect and Avoid' - DAA) capability is viewed as being the key element that will be required before UAS operations will be permitted within non-segregated airspace beyond the visual line of sight of the remote pilot. DAA is therefore an important enabler to realise the full potential of unmanned aircraft systems and hence, their integration into the total aviation system, however it is a capability that the industry will need to develop. As the aviation regulator, the CAA is aware of the level of resource, both on a UK and

international scale, that is being applied towards the issue but specific progress is closely guarded by individual companies. As yet, there are no DAA systems that have reached an appropriate level of maturity to be presented to the authority for certification.

If you require further information please contact: gerry.corbett@caa.co.uk

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
Information Rights and Enquiries Officer

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.

Date	Exemptions/ Permissions Issued	Mass	Location	Duration One-Off Series or Blanket
2009	8	6 Below 20kg 2 20kg - 150kg	3 UK 5 specified locations including Dunsfold,Aberporth and Cardington (Airship)	3 Blanket 5 Series
January 2010	2	Below 20kg	UK	2 Blanket
February 2010	1	Below 20kg	UK	1 Blanket
March 2010	18	Below 20kg	UK	18 Blanket
April 2010	6	Below 20kg	UK	6 Blanket
May 2010	2	Below 20kg	UK	2 Blanket
June 2010	5	Below 20kg	UK	5 Blanket
July 2010	6	Below 20kg	UK	6 Blanket
August 2010	3	Below 20kg	UK	3 Blanket
September 2010	3	2Below 20kg 1 20kg -150kg	UK Walney Island, West Freugh	1 Blanket 1 Series
October 2010	2	Below 20kg	UK	2 Blanket
November 2010	7	Below 20kg	UK	7 blanket
December 2010	3	2 Below 20kg 1 Above 150kg	UK Cardington	3 blanket
January 2011	5	Below 20kg	UK	5 Blanket
February 2011	6	Below 20kg	UK	6 Blanket
March 2011	4	Below 20kg	UK	4 Blanket
April 2011	10	Below 20kg	UK	10 Blanket
May 2011	1	Below 20kg	UK	1 blanket
June 2011	1	Below 20kg	UK	1 blanket
July 2011	6	Below 20kg	UK	1 Series 5 Blanket
August 2011	3	Below 20kg	UK	3 Blanket
September 2011	7	Below 20kg	UK	7 Blanket
October 2011	1	Below 20kg	UK	1 Blanket
November 2011	0	N/A	N/A	N/A
December 2011	1	Below 20kg	UK	1 Blanket
January 2012	1	Below 20kg	UK	1 Blanket
February 2012	0	N/A	N/A	N/A
March 2012	3	Below 20kg Below 20kg Below 20kg	UK Bedfordshire Somerset	1 Blanket 2 Series

April 2012	3	Below 20kg Below 20kg Below 20k	UK Staffordshire Somerset+Suffolk	7 Blanket 2 Series
May 2012	5	Below 20kg	UK	5 Blanket
June 2012	1	Below 20kg	UK	1 Blanket
July 2012	1	Below 20kg	UK	1 Blanket
August 2012	2	Below20kg	UK	2 Blanket
September 2012	16	Below 20 kg	UK Devon/Bristol Channel	15 Blanket 1 specified period

Freedom of Information Act: Section 44

(1) Information is exempt information if its disclosure (otherwise than under this Act) by the public authority holding it-

(a) is prohibited by or under any enactment,
(b) is incompatible with any Community obligation, or
(c) would constitute or be punishable as a contempt of court.

(2) The duty to confirm or deny does not arise if the confirmation or denial that would have to be given to comply with section 1(1)(a) would (apart from this Act) fall within any of paragraphs (a) to (c) of subsection (1).

Section 23 of the Civil Aviation Act is such a statutory prohibition. Accordingly, the obligations of the CAA to comply with Section 23 are unaffected by the Freedom of Information Act.

Under Section 23, information supplied to the CAA in connection with its regulatory functions and which relates to a particular individual or organisation must not be disclosed by the CAA unless such disclosure is authorised by one of the exceptions contained in Section 23 itself.

PubRel

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Safety Regulation Group
Safety Data

Aviation House
Gatwick Airport South
West Sussex
RH6 0YR

Direct Dial 01293 573220
Direct Fax 01293 573972
E-mail sdd@caa.co.uk

Switchboard 01293 567171
Fax 01293 573999

These records were retrieved from the UK CAA Mandatory Occurrence Reporting (MOR) system by a member of Safety Data

The MOR system records include information reported to the CAA, information obtained from CAA investigations, and deductions by CAA staff based on the available information. The authenticity of the contents or the absence of errors and omissions cannot be guaranteed. Records in this system commenced on 1 January 1976 coincident with the introduction of Mandatory Occurrence Reporting in the UK, but occurrences reported voluntarily are also included, and no distinction is made between them.

Note: Any data provided from these records are made available on the understanding that they are only to be used for purposes of flight safety and must not be used for other purposes.

SUBJECT: Mandatory Occurrence Reports involving UAV accidents.
PERIOD : All recorded events up to and including 27th Sept 2012.

A/C Type :	UAV	**Occurrence Number :**	**200910346**
Flight Phase :	Initial Climb	**Occurrence Date :**	23 Sep 2009
Classification :	Occurrences	**Location :**	Aberporth
Events :		**Location Info :**	

Pretitle :
"Problems experienced" immediately after take-off. Landed back on runway. Some structural damage sustained by the air vehicle.

Precis :

A/C Type :	UAV	**Occurrence Number :**	**201005500**
Flight Phase :	Hover	**Occurrence Date :**	28 Apr 2010
Classification :	Occurrences	**Location :**	Stonehaven
Events :		**Location Info :**	Coneyhatch Farm

Pretitle :
Aircraft descended rapidly, pitched down and yawed prior to impacting the ground.

Precis :
Investigation concluded that a loss of aircraft control was caused by alleged unauthorised modifications to a high voltage cable which resulted in burning through a control cable.

Note: Any data provided from these records are made available on the understanding that they are only to be used for purposes of flight safety and must not be used for other purposes.

A/C Type :	UAV	**Occurrence Number :**	**201006997**
Flight Phase :	Hover	**Occurrence Date :**	12 Jun 2010
Classification :	Occurrences	**Location :**	Aberporth
Events :		**Location Info :**	

Pretitle :
During hover, aircraft was seen to yaw and rotate slightly before commencing an un-commanded downward trajectory, travelling 60m before impacting the ground.

Precis :

A/C Type :	UAV	**Occurrence Number :**	**201107395**
Flight Phase :	Flight	**Occurrence Date :**	30 Jun 2011
Classification :	Occurrences	**Location :**	Other
Events :		**Location Info :**	Phoenix UAV Centre Training site.

Pretitle :
Crash landing resulting from yaw control failure. No audible, visual or ground station warnings.

Precis :