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Public perceptions and acceptance of drones, and the question of regulatory effectiveness

Dr Alan Mckenna
University of Kent
Fears burglars are using drones to case homes - as drone reports to police rocket

Families raised fears with the police

By Raymond Brown
15:29, 20 JUN 2018
Could Amazon drones turn hostile? Experts warn UAVs may be hijacked by terrorists and hackers

- Amazon to test its delivery drones in Britain, after permission last week
- During the tests the drones will be only allowed to fly an altitude of 400ft
- Experts have warned delivery drones in wrong hands could be dangerous
- Could fly payloads into busy cities or airspace unless regulation improves

By SARAH GRIFFITHS and ABIGAIL BEALL FOR MAILONLINE
PUBLISHED: 09:09, 1 August 2016 | UPDATED: 13:03, 1 August 2016

Drone reports to UK police soar 352% in a year amid urgent calls for regulation

Exclusive: Experts concerned for public safety as flying robotic machines are taken up by criminals

Peter Young | @pty.young | Sunday 7 August 2016 |

ATTACK OF THE DRONES: Why does Government back this flying nuisance despite terror fears?

THEY are a flying nuisance posing a serious terror threat, exposing Britons to burglars and are a huge hazard in the sky - but why is our Government continuing to back drones?

By REBECCA PERRING
<table>
<thead>
<tr>
<th></th>
<th>Military</th>
<th>Negative</th>
<th>Positive</th>
<th>Neutral</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDEPENDENT</strong></td>
<td>49 (26.9%)</td>
<td>44 (24.2%)</td>
<td>19 (10.4%)</td>
<td>70 (38.5%)</td>
<td>182</td>
</tr>
<tr>
<td><strong>GUARDIAN</strong></td>
<td>145 (43.4%)</td>
<td>66 (19.8%)</td>
<td>18 (5.4%)</td>
<td>105 (31.4%)</td>
<td>334</td>
</tr>
<tr>
<td><strong>DAILY MIRROR</strong></td>
<td>67 (17.7%)</td>
<td>113 (29.9%)</td>
<td>55 (14.6%)</td>
<td>143 (37.8%)</td>
<td>378</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>261 (29.2%)</td>
<td>223 (24.9%)</td>
<td>92 (10.3%)</td>
<td>318 (35.6%)</td>
<td>894</td>
</tr>
</tbody>
</table>

**SURVEY OF NEWSPAPER COVERAGE OF DRONE STORIES: AUGUST 2014 – JULY 2016**
## Drone related calls to Police Forces

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kent</td>
<td>11</td>
<td>53</td>
<td>154</td>
<td>202</td>
</tr>
<tr>
<td>Cambridgeshire</td>
<td>11</td>
<td>45</td>
<td>71</td>
<td>147</td>
</tr>
<tr>
<td>Merseyside</td>
<td>18</td>
<td>53</td>
<td>206</td>
<td>269</td>
</tr>
<tr>
<td>Devon &amp; Cornwall</td>
<td>6</td>
<td>41</td>
<td>110</td>
<td>143</td>
</tr>
<tr>
<td>British Transport</td>
<td>6</td>
<td>29</td>
<td>39</td>
<td>67</td>
</tr>
<tr>
<td><strong>Total (37 Police forces)</strong></td>
<td></td>
<td></td>
<td><strong>3476</strong></td>
<td><strong>4459</strong></td>
</tr>
</tbody>
</table>
## Latest drone call numbers to the Police

<table>
<thead>
<tr>
<th></th>
<th>1&lt;sup&gt;st&lt;/sup&gt; January – 31&lt;sup&gt;st&lt;/sup&gt; March 2017</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; January – 31&lt;sup&gt;st&lt;/sup&gt; March 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kent</td>
<td>27</td>
<td>41</td>
</tr>
<tr>
<td>Cambridgeshire</td>
<td>35</td>
<td>19</td>
</tr>
<tr>
<td>Merseyside</td>
<td>57</td>
<td>37</td>
</tr>
<tr>
<td>Devon &amp; Cornwall</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>British Transport</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>
Cambridgeshire data

2017 data – 147 calls in total received.

52 concerned drones being flown over private homes or public areas.
21 just listed as drone being flown.
24 were calls from professional users advising police where they were working.
10 concerned drones being found.
2 involved threats to shoot down drones.
5 involved concerns over drones being used to case property.
4 related to drones being flown near children.
4 concerned paintballs being dropped from a drone.
Airprox. Board investigations into drone near misses with manned aircraft

<table>
<thead>
<tr>
<th>Year</th>
<th>Cat. A</th>
<th>Cat. B</th>
<th>Cat. C</th>
<th>Cat. D</th>
<th>Cat. E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2015</td>
<td>13</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>2016</td>
<td>26</td>
<td>25</td>
<td>19</td>
<td>0</td>
<td>1</td>
<td>71</td>
</tr>
<tr>
<td>2017</td>
<td>29</td>
<td>27</td>
<td>29</td>
<td>5</td>
<td>3</td>
<td>93</td>
</tr>
<tr>
<td>2018(to 9 May)</td>
<td>9 (7)</td>
<td>5(11)</td>
<td>8(7)</td>
<td>0(1)</td>
<td>1(1)</td>
<td>23(27)</td>
</tr>
</tbody>
</table>
Research on Public Perceptions

Key Findings:
Concerns over informational privacy; spatial privacy; and frustration in not being able to assess and control a situation.

Height a drone is flown at and size of drones are relevant factors. However, concerns regarding informational privacy do not diminish with size of the drone where it has the capability to record information.

Regulators and drone designers need to consider ways to make it possible for people to understand what a drone is doing, whether it is being flown legitimately, and the person flying can be identified.

Danish Ministry of Transport, University of Southern Denmark, and Aalborg University – ‘General Public’s Privacy Concerns Regarding Drone Use in Residential and Public Areas.’ (May 2017).
- ‘Public reactions to drone use in residential and public areas.’ (December 2017).
Robert Knowles - Fined £800 and £3500 costs - 1st April 2014
Prosecutions

2014 – Mark Spencer – CAA prosecution. Fined £300 (2 offences). Also ordered to pay contribution of the £250 costs.


June 2016 – Paul John Raptis. Convicted for flying and filming in Central London (No details of fine imposed publically available)

September 2016 – Nigel Wilson. £1800 fine. £600 costs. £20 surcharge.


Non-Prosecution resolution

October 2017 – Essex Police entered into a Community Resolution agreement with a 28 year old man.
Civil redress

Spatial privacy intrusion - Trespass and Nuisance

Section 76 Civil Aviation Act 1982 prevents a claim being brought where the flight is made in accordance with the Air Navigation Order Rules.
Les Nicolles prison - Guernsey
Wireless Telegraphy Act 2006

The Prisons (Interference with Wireless Telegraphy) Act 2012

Thank you!