

BENEFITS AND PERILS OF DOMESTIC UAV USE

Anna E. Holyan

Dr. Tobias T. Gibson, Ph.D.

Westminster College, Fulton, MO

THE RISE OF THE DRONE

- UAV- UAS
- Adaptability
 - Extensive ISR capabilities
 - Insect to jet-sized
- From military to private citizens:

“Private actors will soon operate drones in equal if not greater numbers than the government does and therefore acquire the potential to undertake just as much surveillance” Wells C.

Bennett, Brookings Institution

OUR WORK

- Limit research to domestic drone use rather than as weapons of war
- Hope to shed light on what has been a muted debate on domestic drone proliferation
- Examine benefits:
 - Public sector
 - Private sector
 - Personal use
- And perils:
 - Airspace Safety
 - Privacy Concerns
 - From government
 - From private sector
 - Terrorist Threat
 - Feeling of Security rather than Being Secure

BENEFITS

PUBLIC SECTOR

- Why are they so useful? The 3 Ds
 - Dull
 - Dirty
 - Dangerous
- Law enforcement
- Natural disaster assistance
- Conducting environmental investigations

PUBLIC SECTOR: DHS

- Have been testing drone capabilities in variety of situations:
 - Detecting radiation
 - Monitoring hostage situation
 - Tracking gun tossed by fleeing suspect
 - Firefighting
 - Locating missing persons



PRIVATE SECTOR

- Commercial usage for drones compounding more than 3 times as much as military use
- Amazon Prime Air
 - Proposal: divide Class G airspace (below 500 ft) into three zones:
 - Ground-200 ft.: hobbyists
 - 200-400 ft.: high-speed commercial zone
 - 400-500 ft.: buffer zone
- Insurance companies
- Real estate agents
- Fashion industry: drones at New York Fashion Week

The private drone industry is like Apple in 1984 by Tim Fernholz

“The UAV industry is a fairly new one, and right now its main focus is on consumer products. That’s partially because it is growing from a consumer base: What has made them possible is the smartphone revolution, which drove down the price on the tiny electronic components needed to turn low-power remote control aircraft into flying robots that navigate, communicate, and sense. While defense contractors were making expensive and powerful drones for the US military, hobbyists were basically bolting iPhones onto remote-controlled helicopters.”

PERSONAL USE: THE DRONE HOBBYIST

- Farming and agriculture
- Search and rescue
- The drone hobbyist
 - The selfie drone
 - Dronestagram
 - Photography, filmmaking, extreme sports



PERILS

PRIVACY CONCERNS

- From government
 - Surveillance
 - Nanodrones and biotechnology
 - Laws lag at national, state and local levels

AIRSPACE SAFETY

- 2014: minimum of 25 reports of near misses between airplanes (commercial and passenger) and UAVs
- 2015: surge continues; near misses at JFK, Heathrow; UK takes action
 - FAA: two reports per day from pilots saying they spotted UAV
- 17 states now have drone and airspace rules

IS THIS A MOSQUITO?

No. It's an insect spy drone for urban areas, already in production, funded by the US Government.

It can be remotely controlled and is equipped with a camera and a microphone.

It can land on you,

and it

may have

the potential to

take a DNA sample

or leave RFID tracking

nanotechnology on your

skin. It can fly through an open

window, or it can attach to your

clothing until you take it in your home.



Mike Keel INTOON.COM 5.18.12 caglecartoons.com



PRIVACY CONCERNS

- From private sector
 - “Peeping Tom” made easier with drones
 - Business and surveillance



Los Angeles Times
Seattle woman says drone
seemed to be spying on her

The Seattle Times
Did Peeping Toms use drone to
spy on Seattle woman?

USA TODAY
Drone accused of peeping into
woman's window was
photographing aerial views



CBS
THIS
MORNING

PEEPING DRONE

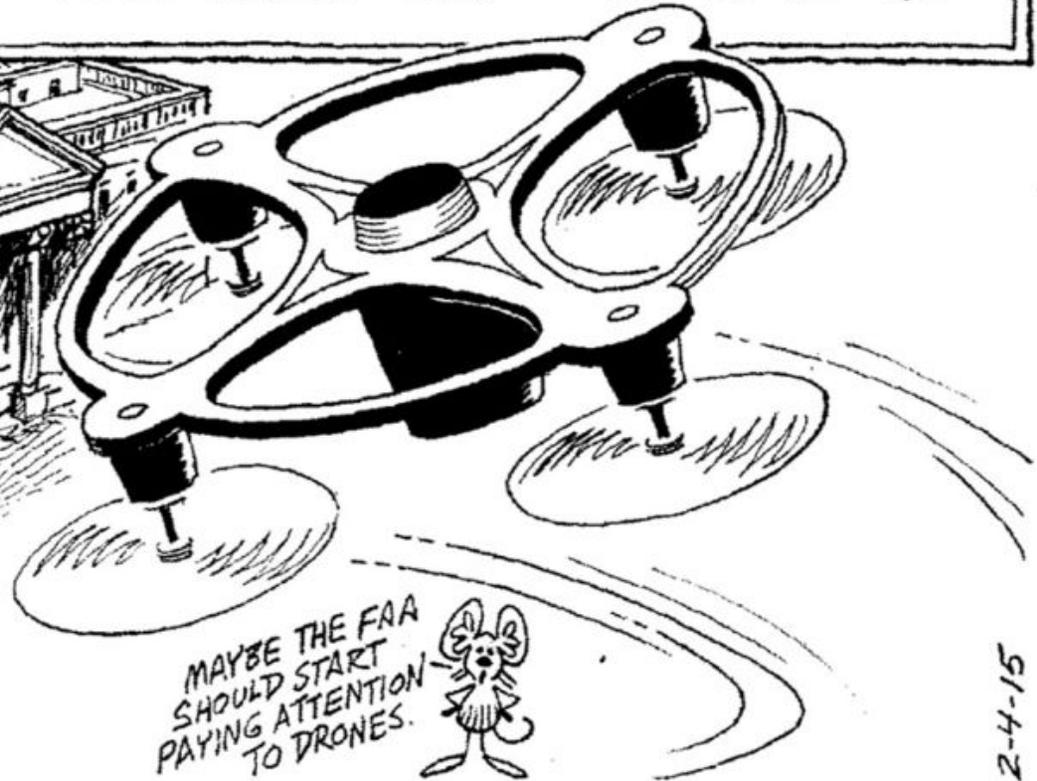
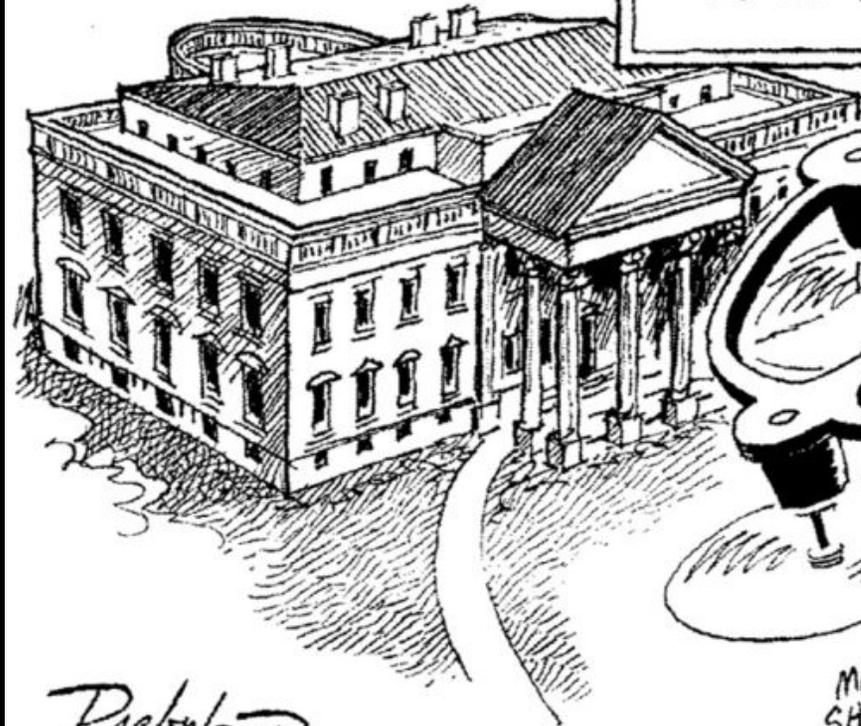
NEW TECHNOLOGY CHALLENGES RIGHT TO PRIVACY

TERRORIST THREAT

- Israel has already been attacked by Hamas drone
- US police forces already concerned about drone attack by terrorist
- Drone crashed onto White House lawn seems to confirm the threat

DRONES-HIGH TECH

TOY OR POTENTIAL WEAPON?



MAYBE THE FAA
SHOULD START
PAYING ATTENTION
TO DRONES.



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2-4-15

BACKLASH, AT LEAST IN THE SHORT-TERM

- “Prepare for the Drone Apocalypse” ammunition
- Local reaction for Seattle and LAPD use of drones
- Protestor backlash against government use of drones



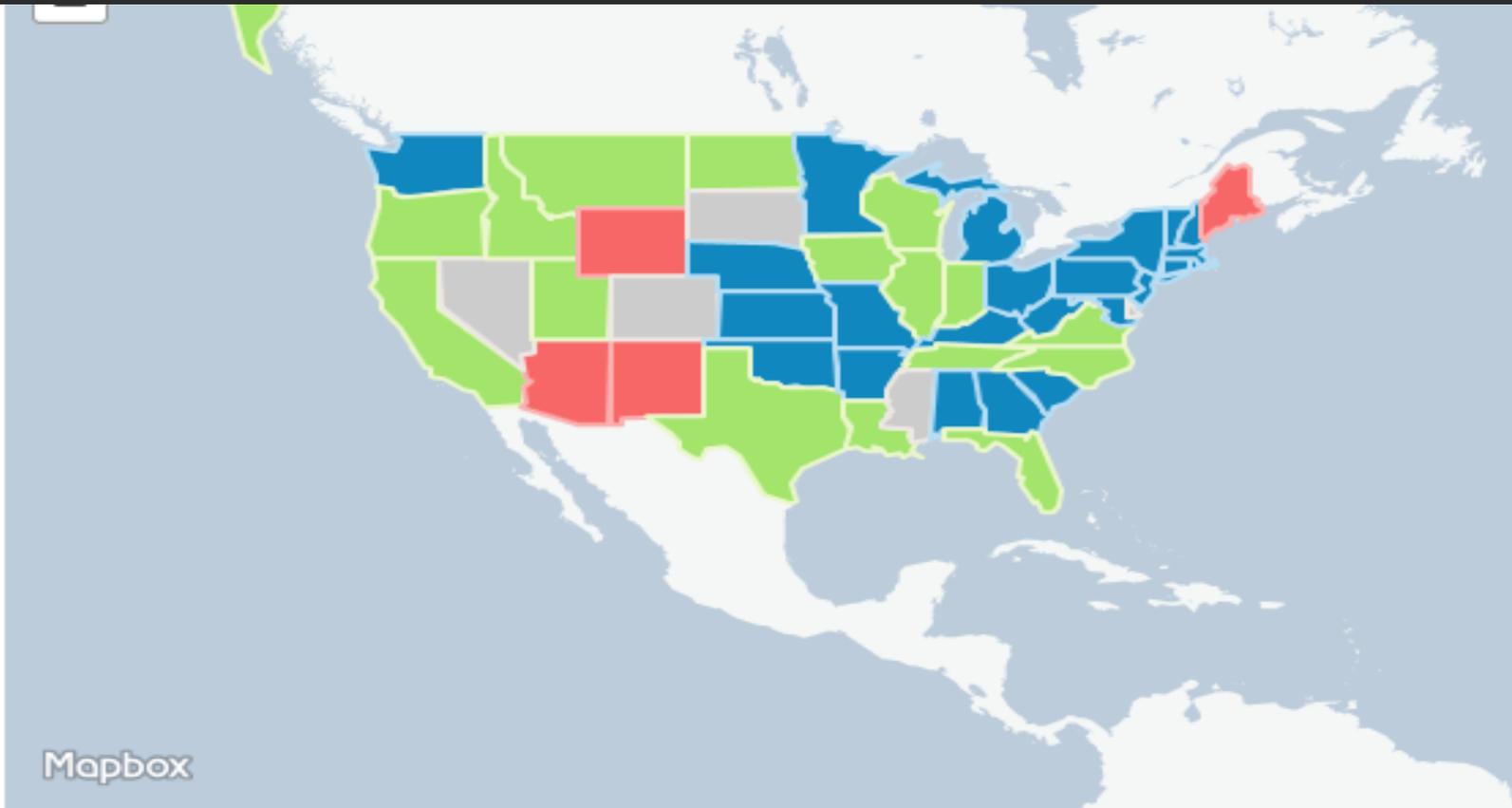


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kcal9.com

- <http://uavs.insct.org/>



Key

- | | | | | | | | |
|---|--|---|-------------------------------------|---|---|---|---|
|  | States that have enacted UAV legislation |  | States with pending UAV legislation |  | States that have affirmatively voted down UAV legislation |  | States that have never proposed UAV legislation |
|---|--|---|-------------------------------------|---|---|---|---|

SOURCES

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