

# UAS Uses and Issues

## ▼ Precision Agriculture

- Water Conservation
- Crop dusters
- ▼ Water Quality
  - ▼ Fertilizer Reduction
    - Groundwater Quality Implications
  - ▼ Pesticide Reduction
    - Early warning for agricultural pests
    - Groundwater Quality Implications
  - Reduction Of Infectious Diseases

## ▼ Natural Resources Management

- Wetlands Restoration
- Global Change Research
- Water quality monitoring

## ▼ Parks

- ▼ Breath of prohibition factors
  - Noise
  - Privacy
  - Visual
  - Safety
- ▼ Effects on wildlife
  - Disturbance Of Animals
  - Crashes
- Permitting factors

## ▼ Police and UAS

- Warentless Searches
- Role of Homeland Security
- Safety
- Crowd Control
- Privacy

## ▼ Privacy Issues

### ▼ UAS BELOW 83'

- *US v. Causby, 328 US 256, 258 (1946)*

- UAS below 400' threshold above 83'
- Sub-orbital UAS (above 6500')
- Government UAS
- Time, manner and place restrictions
- UAS in combination with other sorts of information on citizens

## ▼ Military Drone Issues

- ▼ Global norms for drone strikes
  - Increasing Controls and transparency and establishing a legal framework that can be applied internationally.
- ▼ Using Drones To Destroy Intercontinental Missiles: <http://www.economist.com/news/united-states/21602245-mulling-cheaper-better-way-shoot-down-enemy-missiles-star-wars-2-attack>
  - Potential for perpetual low level war

## Property Rights Issues

- Lack Of Specific Laws:<http://www.theatlantic.com/technology/archive/2012/10/if-i-fly-a-uav-over-my-neighbors-house-is-it-trespassing/263431/>

## ▼ Civil aviation safety issues

- Collisions

## ▼ Terrorism Issues

- Spying
- Carrying Of Bombs

## ▼ Number of drones now in use, those projected to be in use.

- FAA number UAS of estimates

- Press number of UAS estimates

## ▼ Use of UAS in emergency services

### ▼ Fire

- Fire Suppression
- Fire management planning

### • Search and Rescue

## ▼ UAS systems in research

### • Global Change Research

### • Search and Rescue

### ▼ Drones in Hydrodynamics

- *Water Quality monitoring*

## ▼ Search and Rescue

### • Police

### • Military

## ▼ Infrastructure Management

### • Oil and Pipeline infrastructure

### • Power line maintenance

## ▼ FAA

### ▼ Test Sites

- Economic development FAA mission

### ▼ Regulations

- Public outreach

### • COA

### • Weight Restrictions

### • See and avoid

## ▼ Commercial UAS issues

- ▼ **Drones and photography, videography**
  - ▼ Commercial photography issues
    - Peeping Tom
    - Privacy Issues
  - Delivery Of Illegal Drugs
- ▼ **State and local UAS regulation**
  - AB1327
  - National Parks
- ▼ **Restricted Fly Zones**
  - *Airports*
  - *Cities*
  - *Others*