

# Drones - Is This The Future of Law Enforcement?

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## **Abstract**

*This research paper describes the risks and rewards for using unarmed drones in Florida law enforcement. Drone technology is still relatively new in law enforcement. Only three Florida agencies utilize an unarmed drone. Budgetary reasons and lack of community support are the biggest reasons for agencies not purchasing a drone. Drones have proven themselves to save pilot lives, assist in photographing crime and accident scenes, and are much more cost effective than the modern police helicopter. This new technology is explored and the reasons for and against are discussed.*

## **Introduction**

Arguably the best tools available to law enforcement in the last thirty years has been the bullet proof vest, semi – auto pistol, laptop computer, and TASER. Now, a new tool emerging is the unmanned aerial vehicle (UAV), commonly referred to as the “drone”.

“Drones are aircraft either controlled by “pilots’ from the ground or increasingly, autonomously following a pre-programmed mission. (While there are dozens of different types of drones, they basically fall into two categories: those that are used for reconnaissance and surveillance purposes and those that are armed with missiles and bombs. . . unlike manned aircraft, drones can stay aloft for many hours, they cost much less than military aircraft and they are flown remotely so there is no danger to the flight crew.)” (Cole & Wright, 2013).

The world has seen the use of drones in the wars in Afghanistan, Iraq, and Pakistan. Their effects and success in fighting terrorism are regularly seen on national television. The use of drones began under President George W. Bush and has increased substantially under the Presidency of Barack Obama (Miller, 2011). In this study, I measure the political impact as well as the risk and rewards associated with the use of drones by law enforcement agencies.

## **Literature Review**

Most people envision drones as war machines that shoot missiles into terrorists’ cars or buildings. However, this is not the case with the drones that are being manufactured for domestic use. In February 2012, President Obama signed the F.A.A. Reauthorization Act that envisions a \$5 billion-plus industry of un-armed camera drones

being used for all sorts of purposes from real estate advertising to crop dusting to environmental monitoring and police work (Rosenthal, 2012).

An example of law enforcement use is the Los Angeles Sheriff's Department's use of the SkySeer drone which hovers in virtual silence at an accident scene or crime scene, without any risk to a pilot, providing officers a tactical advantage and saving the department money. The potential savings are great when compared to the high cost of owning, storing, and using the helicopters they now use (Roberts, 2009).

The anticipated market includes tens of thousands of police, fire and other government agencies able to afford drones lighter than traditional aircraft and costing as little as \$300.00. Several surveillance drones are already used for border patrol, and the F.A.A. has allowed a few police departments to experiment with them including flights over the everglades by the Miami-Dade Police Department (Rosenthal, 2012).

Several law enforcement agencies have filed applications for drones with the F.A.A. Metro/Dade Police Department already has two drones. These surveillance drones have not been used in a real life situation outside training however, Special Patrol Major Thomas Hanlon stresses the number one benefit to having the drones is the cost. According to Major Hanlon, Metro/Dade Police Department received one drone for \$50,000 and the other for \$1 dollar a month through a grant (Taylor, 2012).

The Mesa County Sheriff's Department in Colorado has been using drones for three years. Mesa County Deputy Ben Miller, who created the drone program for his agency, states their drone is primarily used for crime scene and accident reconstruction. Deputy Miller uses the drone to fly two concentric circles, at two elevations, capturing about 70 photographs, at a cost of \$25.00 per hour. Deputy Miller then loads the images into online digital mapping software, which creates a virtual crime scene that can be uploaded to an iPad. This 3-D digital reconstruction can serve as a roadmap for investigators and juries (Francescani, 2013).

Another agency, Montgomery County Sheriff's Office in Texas, cites the cost savings as a huge benefit for purchasing their drone. They stated that it costs them \$30.00 an hour to fly their drone versus \$500.00 an hour to fly a helicopter. The agency states the drone is used by their agency to assist in monitoring parades, performing reconnaissance ahead of raids, and helping officers responding to accidents such as highway pileups and hazardous-material spills (Campoy, 2011).

The use of domestic drones has its share of opponents as well. Numerous states have considered or have introduced legislation to restrict drone usage in law enforcement. One state in particular, Florida, has recently passed legislation to curtail the usage of drones by Florida law enforcement agencies. The bill, (SB – 92) commonly referred to as the "Freedom from Unwarranted Surveillance Act" prohibits law enforcement agencies from using drones or other information unless:

1. The U.S. Secretary of Homeland Security determines that credible intelligence exists indicating a high risk of a terrorist attack by an individual or organization.
2. The law enforcement agency first obtains a search warrant authorizing the use of a drone.
3. The law enforcement agency has reasonable suspicion that swift action is necessary to prevent imminent danger to life, such as to facilitate the search for a

missing person, to prevent serious damage to property, or to forestall the imminent escape of a suspect or the destruction of evidence (Negron, 2013).

This bill cleared the house and senate and took effect July 1, 2013. The bill was signed into law by Florida Governor Rick Scott on 4-25-2013.

The American Civil Liberties Union (ACLU) has taken up the issue with domestic drones. Most of the outcry the ACLU cites is the issue that these drones could be armed and more importantly the effect drones can have on an individual's privacy and civil liberties. The ACLU argues that police helicopters are very expensive and mass use of them would be prohibitively pricey. In comparison, drones cost a fraction of what a helicopter costs and a police agency can purchase and deploy numerous drones, thus creating a police state (McCormack, 2013).

Current review of case law revealed no case law on point regarding drones. This is directly related to the fact that domestic drones are a new technology and its potential is still undetermined. However, drones are considered aircraft and one major case law concerning aircraft usage in law enforcement is *California v. Ciraolo* (1986). Justices were asked whether a police department violated constitutional protections against illegal search and seizure after it flew a small plane above the backyard of a man suspected of growing marijuana. The court ruled that "the Fourth Amendment simply does not require the police traveling in the public airways at this altitude to obtain a warrant in order to observe what is visible to the naked eye" (Finn, 2011).

Currently, drones can be outfitted with high-powered cameras, thermal imaging devices, license plate readers, and laser radar. In the near future, organizations might seek to outfit drones with facial recognition or soft biometric recognition, which can recognize and track individuals based on attributes such as height, age, gender, and skin color. The relative sophistication of drones contrasted with traditional surveillance technology may influence a court's decision whether domestic drone use is lawful under the Fourth Amendment (Thompson, 2013).

The state of Virginia has recently had in – state political battles over drones and their intended uses. Virginia police have stated the drones can help them in their fight on crime. Virginia Governor, Robert McDonnell, sided with law enforcement, and said he supports officers having access to drones to increase public safety (Bryan & Jones, 2013).

However, state lawmakers are worried about privacy concerns. Virginia Delegate C. Todd Gilbert, R-15<sup>th</sup>, is concerned about right to privacy. He stated "We certainly want to get ahead of that curve before there are some abuses of that information they can gather with that technology" (Bryan & Jones, 2013)

The Virginia debate is on- going and is headed to legislation being filed to regulate drone usage by law enforcement.

This researcher set out to find out if Florida law enforcement agencies are ready to incorporate drones as a tool to assist with their daily operations. In order to determine this, a survey was created to determine the risks and rewards for utilizing an un-armed drone, the anticipated costs savings and perception in the community.

## Methods

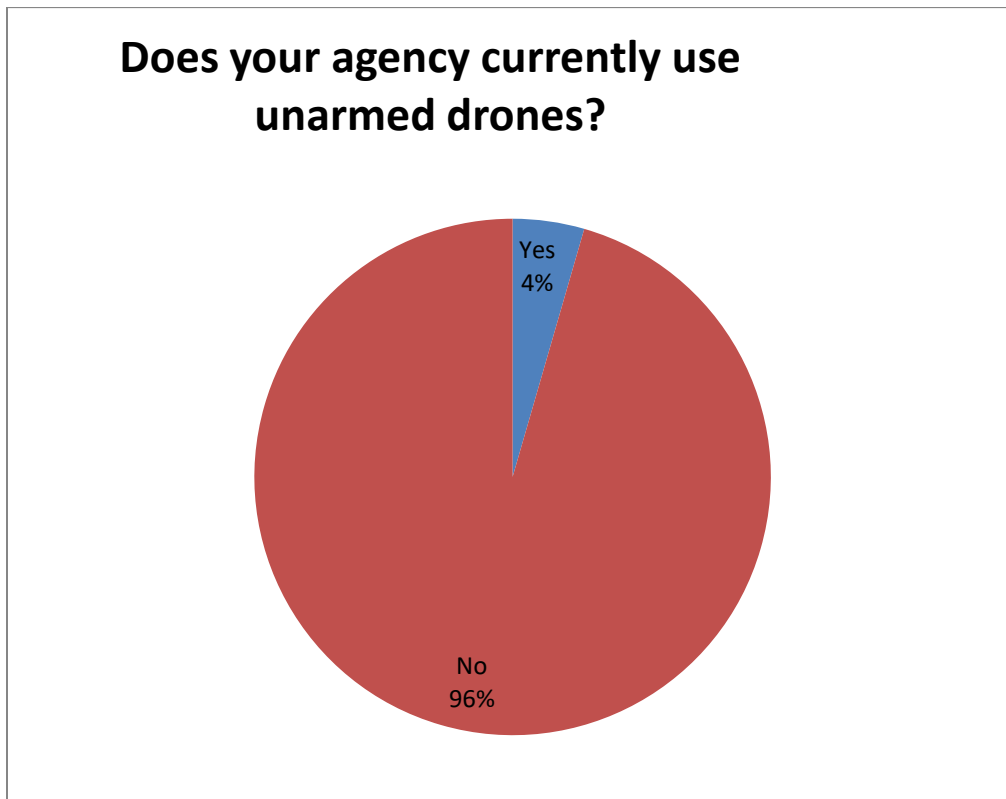
The researcher utilized internet search engines, police periodicals, interviews, case law, and surveys to determine the objectives of this research. Political impact, constitutional issues and the risks / rewards were evaluated with the above research methods.

One Law Enforcement Survey was created to better understand the risks and rewards of using drones in police service. The survey was sent to all 67 Florida Sheriff's Departments. Full text of the survey is available in the Appendix. The survey questions consisted of identical questions that were asked of each agency. The researcher conducted the surveys by phone. Respondents were chosen from the respective sheriff's departments detective divisions with the rank of Lieutenant and above. The respondents were chosen as they are cross trained and at the rank level to add value and input to their agencies when deciding on whether to purchase a drone.

## Results

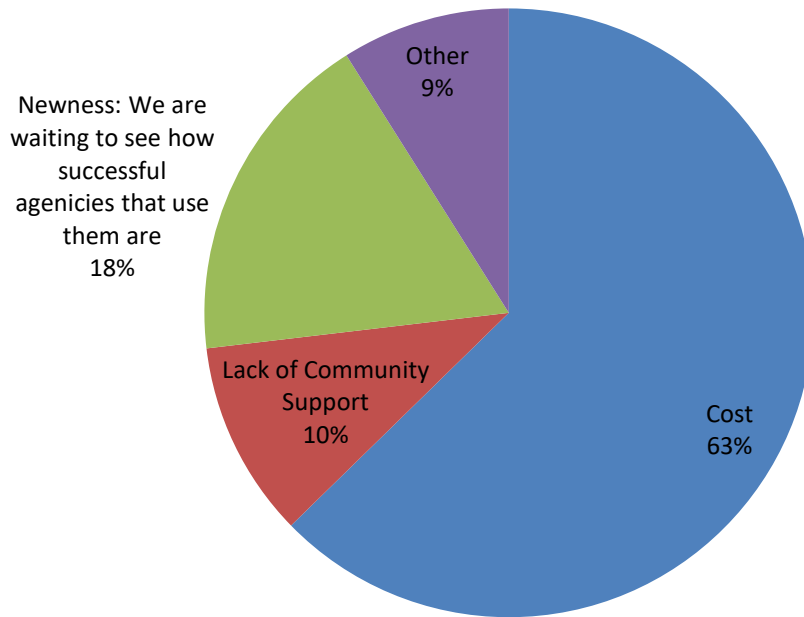
All 67 of the Florida Sheriff's Departments responded to this telephone survey yielding a 100% return rate for said survey.

Out of the 67 sheriff's offices in the State of Florida, 3 agencies have drones. The remaining questions in the survey explore why the agencies do or do not have drones.



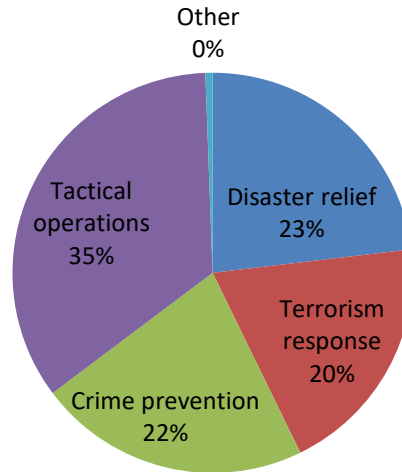
Sixty three percent of the sheriff's offices responded that they do not own or use a drone due to the cost. Although drones are relatively cheap, most agencies have suffered from a stagnant economy since 2008.

**If you answered no to question 1, what is the primary reason for not using a drone?**

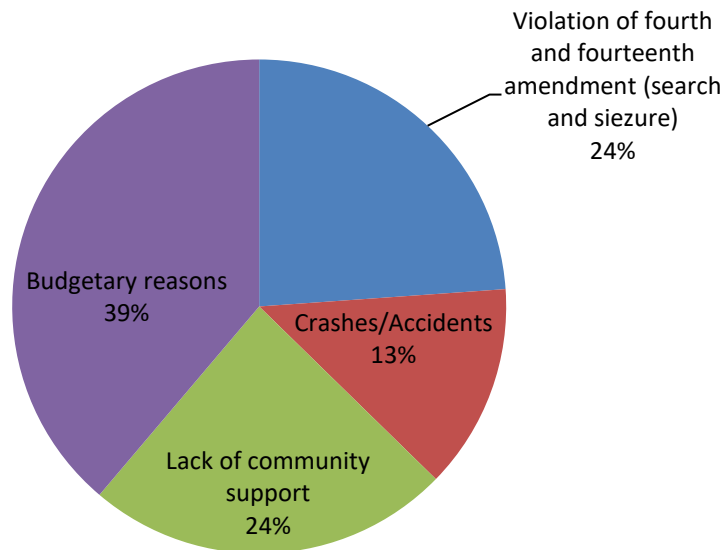


Tactical Operations were cited as the number 1 (35%) benefit for having a drone and budgetary reasons (39%) were cited as the biggest risk to having a drone.

### What do you think the benefits are for using unarmed drones?

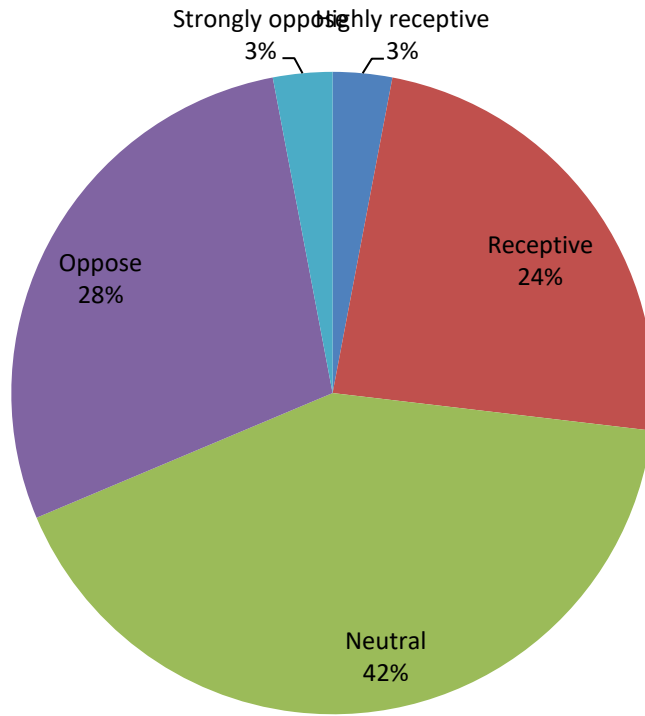


### What do you think the risks for your agency are if you have or utilize an unarmed drone?

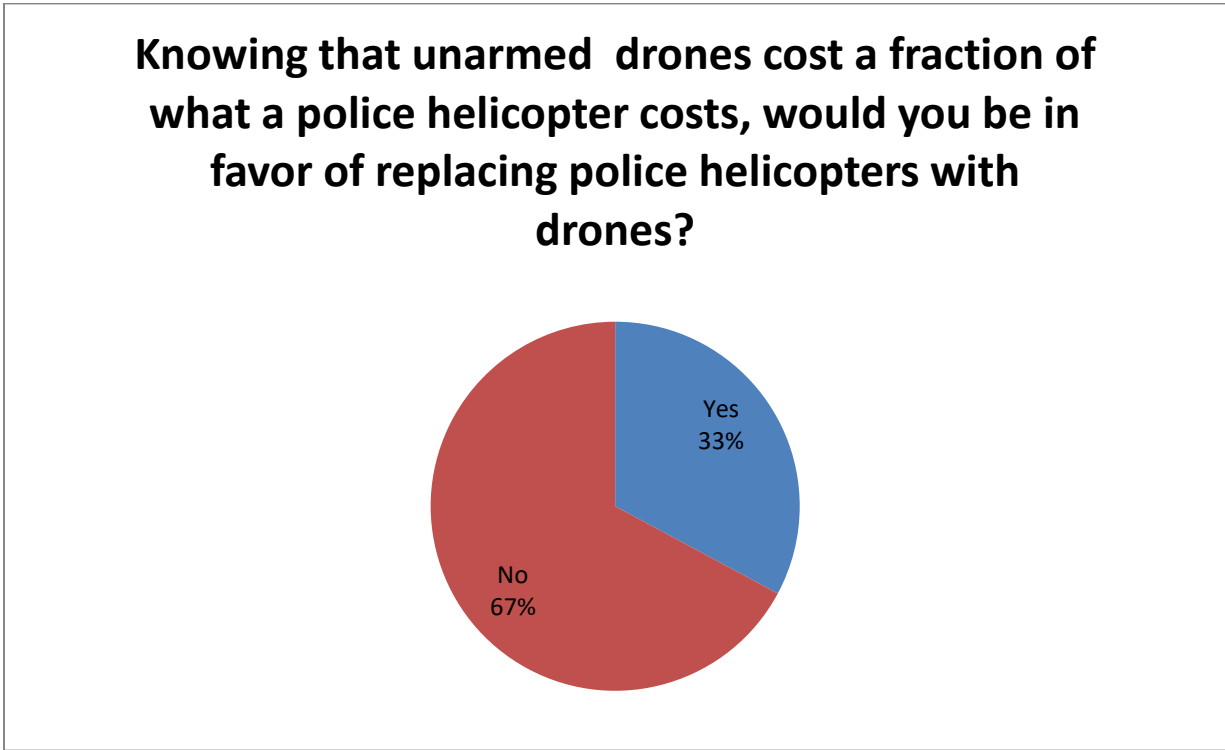


Forty two percent of the sheriff's offices felt the community would be neutral to their agency having a drone compared to 28% that thought they would oppose it.

### How do you think your community would respond to your agency using unarmed drones?



Sixty seven percent of the sheriff's offices in the state of Florida would not be in favor of replacing a helicopter with a drone – regardless of suggested savings.



### Discussion

The use of drones in law enforcement is a relatively new concept. Only three agencies in the state of Florida have them. The survey conducted in this research revealed most agencies (63%) simply cannot afford them. The second leading reason for not having a drone is the newness. Eighteen percent are waiting to see the successes of other agencies before making a decision to purchase one. Obviously, the economy and shrinking state and county budgets certainly have an effect on the decision to buy a drone.

Tactical operations, disaster relief, crime prevention, and terrorism response were all cited as a benefit to using a drone. Tactical operations were the highest benefit at 35% and terrorism response was the lowest benefit at 20%. The risks cited in using a drone in law enforcement were budgetary reasons lack of community support, violation of search and seizure and crashes and accidents. Thirty nine percent of the agencies cited budgetary reasons as the number one risk and accidents were cited by 13% as the number one risk.

Of the 67 Sheriff's Offices in the state of Florida, 42% feel that their communities would be neutral on whether they favor or oppose law enforcement using drones.



Twenty eight percent think their communities would oppose and 24% responded their communities would be receptive. Three percent felt they would strongly oppose and 3% felt their communities would be highly receptive to law enforcement using drones.

Sixty seven percent of the agencies stated they would not be in favor of replacing a police helicopter with a police drone. Most cited the fact that they did not want to replace the human aspect of the mission. Thirty three percent are in favor of replacing police helicopters with drones.

Clearly, using drones in the state of Florida is in it's infancy as this technology is still new to para-military organizations. This research clearly points to cost as the biggest problem with purchasing a drone. The cost of the drone is not the problem as one can be purchased for the same amount as a new patrol vehicle. The problem lies within the state of the economy. Most law enforcement agencies in the state of Florida, along with the private sector are still recovering from a near economic depression nationwide. This, coupled with the newness of drone technology, makes purchasing drones a tough decision.

The three agencies currently owning a drone are the Orange County Sheriff's Office, the Polk County Sheriff's Office and Metro/Dade Police Department. Orange County has a population of 1.169 million people and the department has 2400 sworn members. Polk County has a population of 609,492 and the department has 660 sworn members. Metro/Dade has a population of 2.4 million and the department has 2900 sworn members. Obviously these are some of the largest agencies in the state of Florida and they would certainly command a larger revenue base for their agencies budget.

In this age of ever developing technology to perform tasks faster, smarter and cheaper - the drone is here. Their successes are heralded by our military leaders and politicians. One can only imagine why state legislators and congressional members are passing laws at a rapid pace to curtail how drones can be used by law enforcement. It is primarily that they themselves know that this awesome technology is here and will not simply fade away. The "imaginative technology" for drones is endless. Drones can be programmed to deliver tacos for a restaurant, search for a missing person, capture extraordinary video, check a farmer's crop, and to search for suspects in a large crowd via facial recognition to name a few. The next chapter in the technological evolution of drones in law enforcement is the legal aspects of using a drone in police work. The fourth and fourteenth amendment to the constitution (search and seizure) will certainly need to be examined as their implications will certainly become an issue with the citizenry and the courts.

Lieutenant Dan Mahla has been in Law Enforcement for 26 years. He started with the Meridian Police Department in Mississippi in 1987. After moving back to Florida, he began serving with the Clay County Sheriff's Office in 1993. He has served as the Homicide Sergeant; Patrol Watch Commander and Hostage Negotiator Team Leader. As a Lieutenant he is currently assigned as the commander of the Cyber Crimes Unit, Financial Crimes Unit and Crime Scene Unit. Dan earned an Associate's Degree in Public Safety from Vincennes University and a Bachelors' of Science in Criminal Justice Administration from Columbia College.

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## Appendix A

### Law Enforcement Agency Survey

1. Does your agency currently use unarmed drones?
  1. Yes
  2. No
  3. In process of getting one
  
2. If you answered no to question number 1, what is the primary reason for not using a drone?
  - a. Cost
  - b. Lack of community support
  - c. Newness: We are waiting to see how successful agencies that use them are
  - d. Other (please specify)
  
3. What do you think the benefits are for using unarmed drones? Select all that apply.
  - a. Disaster relief
  - b. Terrorism response
  - c. Crime prevention
  - d. Tactical operations
  - e. Other (Please specify)
  
4. What do you think the risks for your agency are if you have or utilize an unarmed drone (please explain)?
  - a. Violation of fourth and fourteenth amendment (search and seizure)
  - b. Crashes / Accidents
  - c. Lack of community support
  - d. Budgetary reasons
  
5. How do you think your community would respond to your agency using unarmed drones?
  - a. They will be highly receptive
  - b. They will be receptive
  - c. It will not matter either way
  - d. They will oppose the use of drones
  - e. They will strongly oppose the use of drones

6. Knowing that unarmed drones cost a fraction of what a police helicopters costs, would you be in favor of replacing police helicopters with drones?
  1. Yes
  2. No