

Law Enforcement Use of Drones

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### Abstract

Drone use by law enforcement is a concept that most people have not given much thought to but could be an emerging concept. There are many different angles to this concept as drones have already gotten some bad press when it comes to the many “what ifs” of unmanned autonomous vehicles. The essay will examine the current use of drones in law enforcement as well as future outlooks on how their uses could change over time. This essay will also consider some of the obstacles that UAS systems must “hurdle” before being implemented into the wild.

First, this paper will start by discussing the current use of drones in law enforcement and how effective they have been. This paper is meant to be a broad look at law enforcement's use of drones as they are still quite new and haven't gotten a lot of press. Drones have however been slowly released into the jurisdiction of larger cities such as Seattle or L.A. Just because it is new however does not mean it hasn't had its controversy. There was an incident in Grand Forks, ND where a drone was used to assist in the arrest of a person, and this was received in a rather uneasy way. The United States border patrol also has a lot of drones that fly back and forth along its borders each day. There was an instance during the riots in Minneapolis where they had an MQ-9 reaper circle the twin cities for a bit. These are just a few cases and instances that will be reviewed in this paper.

First off this will review some of the possible benefits or pros to drones being implemented mainly by the police. The first is accident reconstruction. Drones can be excellent tools when it comes to taking photographs and mapping. This implementation could even allow for the 3D construction of a crime scene with high fidelity. These are the kind of tools that can help propel the use of drones as it would be vastly easier for a detective to not have to physically be at the scene but could potentially do their job from their laptop. Or if it were to come to present this evidence in a courtroom. The next point would be event monitoring. Really large events that draw crowds in the thousands can be quite dangerous as everyone became well aware of the recent events at a famous rapper's concert in Texas. Of course, drones aren't allowed to operate over people or crowds for that matter without a special permit, but potentially the FAA could allow some use for medical personal at large events. Pushing one's way through a crowd can be a hassle for anyone but if a small device with a camera mounted on it could spot people in crowds that needed medical assistance, it could potentially save the lives of many.

Next is traffic management. While a speeding car that was observed by a drone might be hard to use in court. It could save the need for highway troopers or general police officers patrolling the streets. Drones could potentially hover above highways and record many cars at once.

The next example is for search and rescue. In 2005 there was a teacher from Georgia named Tara Grinstead went missing and the local sheriff's office used a fixed-wing drone to search potential areas. There's also thermal imagery that can be used to search for persons who are potentially lost in something like a forest for example.

There was a situation that developed in North Dakota in 2011 where Grand Forks police officers got help from a general atomics MQ-1 predator. The man was considered to have a hostile attitude towards government and law enforcement, so the drone was used to make sure he was unarmed. Once this was confirmed police were able to move in and make a safe arrest. The controversy that arose from this is that the man who was arrested claimed that the drone required a warrant that was not filed when he was arrested. While the man in this story is a criminal, it does bring up a good point when can the police use drones for situations such as this? Like most technology, there probably is another side to police use of drones.

I think the biggest problem surrounding public perception and police use of drones has got to be the corruption element. Especially lately it seems that people's mistrust of police is on the rise. A lot of people also probably won't understand all the applications a police drone could potentially have and people tend to be afraid of that which they don't understand. There are also a lot of liability concerns such as injury to persons or property.

To conclude this paper it is clear that there are many pros and cons to drone usage by law enforcement. The biggest pro is clearly that it could save the government and police departments

a lot of time and money. The downside is that if they are used improperly or maliciously, it could harm the reputation of the law enforcement body or could cause bodily harm to people. I think the question remains as to what it would look like if a police force utilized drones in the field on a smaller level. Most activity to date has been with larger fixed-wing aircraft. With the explosion of popularity however in smaller yet equally capable drones, I think there's no doubt they will be flying around urban areas in no time.

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