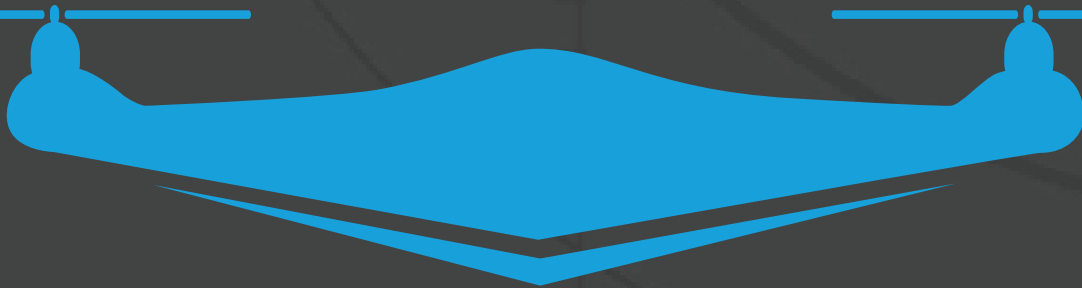


DARTDRONES



**IMPLEMENTING A UAV
PROGRAM FOR YOUR POLICE
DEPARTMENT**

From search and rescue to accident investigation and crowd control to crisis management, drones are changing the way law enforcement tackle missions, particularly those missions where every second counts. Public safety officials across the country are realizing the vast benefits of drone units in their industry and new programs are being implemented at a rapid rate. Launching a new UAV program poses many considerations and challenges. If you think a UAV unit might be right for your department, this guide will walk you through the steps to building a drone program that fits your needs.



►►► DARTdrones: The Nation's Leader in Drone Training

DARTdrones is the nation's leader in drone training, consultation, and expert support for public safety UAV units. Our mission is to provide the highest quality training on Unmanned Aerial Systems to ensure the safe and efficient integration of drones into the Police Force.

We believe that drones are saving lives and changing the way police officers are approaching missions. With experience in training over 70 public safety departments, we pride ourselves on our friendly, knowledgeable, and expert flight instructors. Our public safety instructors all have a manned aviation background with 1500+ combined hours of UAV instruction and experience in search and rescue, crowd control, surveillance, aerial command, criminal pursuit, rapid response, fire investigation, search and rescue, HazMat operations, hot spots detection, fire scene assessment and safety, and landfill and sub surface fire detection.

►►► About the Author

Michael Uleski is the DARTdrones Chief Public Safety Instructor and an active Patrol Division Sergeant with a public safety department in Florida, where he is cross trained as a law enforcement officer, firefighter, and EMT. He has a degree in Aeronautical Sciences from Embry-Riddle and a commercial pilot certificate with single-engine, multi-engine and instrument ratings. He has over 17 years of experience building and flying remote-controlled aircraft including helicopters, fixed wing, and multi-rotors. Michael has provided his expertise to DARTdrones in training over 70 public safety departments as well as developing the public safety Search and Rescue, Thermal, and Night Operations workshops. Michael developed this document to benefit new Police Departments interested in implementing a drone program.



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Establish a Program Foundation

The first step to developing a comprehensive drone program that fits the unique mission and goals of the department is to establish a foundation. The objective of this stage is not to set limits in determining what the UAV unit will become, but to understand the realistic possibilities of how your department and community will benefit from a firmly established drone program.

▶▶▶ Determine your Department's Needs

Detailed planning at this stage will reduce future complications when deciding which equipment to purchase, pitching the program to your superiors or local government, gaining public support, and other required aspects for a successful implementation. Consider the following factors when establishing the requirements of your department:

Mission Specific Operations

First, we recommend establishing the different types of missions for which your department is frequently responsible. Then determine for which missions the drone will be used. Clarifying these specific operations will help determine which small Unmanned Aircraft System (sUAS) is best to purchase. Many police departments use UAS's for search and rescue, crowd control, surveillance, aerial command, criminal pursuit, and rapid response missions. There are many operations that drones can aid, but determining which ones are important to your department will help expedite the process.

Size of Your Department

Next, consider the size of your department and how this will impact your UAV unit. Large departments may cover a vast geographic area, serve a wide population, and employ hundreds of officers. Small departments may operate in rural areas, cover a small location, or employ fewer officers. Some teams will deploy their UAS daily while others may only need it once or twice each week. For departments with a wide array of use cases, there will be a need for specialized equipment that could be subjected to different legislation than smaller departments would experience. This can affect how you establish and implement your unit.

Budget, Pilots, and More

In later sections, we will discuss developing a budget, choosing and training pilots, regulations and legislations, and creating a policy. However, it is crucial to start thinking about these factors in the initial stages. Lay out financial factors that you know are required for a UAS program such as the drone, accessories, software, training, and insurance. It is also helpful to consider which officers will be going through UAS training to become unmanned pilots for the department.

Using Past Records

Use the department's crime analyst or records specialist as a resource. The information they track and record can provide useful data regarding the most common types of service calls to which your department responds. Ask questions about when specific incidents occurred, where they took place, what resources were used, and what resources would have been advantageous if available. This information can assist with tailoring the drone program to meet your department's needs and best serve your community.

Communicate with Other Divisions

Communicating with other divisions and specialty units will determine how they could use the UAV in their operations. This will generate new possibilities and assist other units in operating more effectively within the community. For example, a detective division could benefit from an aircraft with extended flight time capabilities and a high-quality camera for surveillance work. A SWAT team may use a micro UAV for monitoring a house during a barricaded suspect call. An aircraft with forward-looking infrared (FLIR) capability for night operations may best benefit patrol units. Creating an abundance of beneficial use cases during this stage will increase the chance of gaining approval for the drone program and help expedite the process.

Look for Individuals with Experience

Determine if anyone in your department has aviation experience. A UAV unit will operate comparably to a manned aviation unit. Discovering that someone in the department has preexisting knowledge of airspace, weather considerations, and Federal Aviation Administration (FAA) regulations can greatly advance the pilot selection process.

Work with Your Network

Networking with other agencies that have an established drone unit can also be an effective strategy. If experience within the department is limited or nonexistent, contact departments that are developing their own UAV units for assistance. Other agencies may be able to provide you with helpful tips and answers to difficult questions. Even if you have a large amount of experience available, communicating with agencies in your network is a worthwhile exercise.



Regulations: Choose Between Part 107 or a COA

Part 107

In June 2016, the FAA launched a new set of regulations known as Part 107. This set of Federal Aviation Regulations (FARs) were the FAA's first official rules governing the commercial use of sUAS. In addition to outlining the operational limitations of sUAS, Part 107 also provided requirements for the issuance of a Remote Pilot Certificate with an sUAS rating for commercial drone pilots.

Part 107 is also intended to be the first step towards a full integration of drone use into the National Airspace System (NAS). The complete set of regulations has been published in the Federal Aviation Regulations Aeronautical Information Manual (FAR AIM), but here are some of the aspects you ought to be aware of:

- Categorized as "Civil Aircraft Operations" (not public safety)
- Liability/responsibility falls on individual pilots
- Allows for daytime flight ONLY without a special waiver
- Must get permission to fly in B, C, D, and E airspace for each flight - a significant issue for most major metro areas
- Allows for operation under 400' AGL (Above Ground Level)
- Allows for operation within visual line of sight for the operator

Some police departments operating their drone program under Part 107 find that many of the regulations restrict them from performing certain tasks; however, many sections of Part 107 allow for waivers if the operator is able to provide a safety plan to minimize risk. Currently, operators are requesting Part 107 waivers and authorizations for:

- Flying at night
- Flying over people
- Flying beyond the visual line of sight
- Flying multiple UAVs at the same time
- Flying at altitudes over 400' Above Ground Level (AGL)
- Flying in regions of controlled airspace

The most prominent benefit to having pilots operating under Part 107 is a guaranteed proof of training in regulatory aspects. UAS operators will have a full understanding of the FAA's rules and regulations regarding drone use if they are able to pass the Part 107 exam.

The Certificate of Waiver or Authorization for Public Aircraft Operations (COA) offers flexibility to police and other public safety departments. This certificate is a beneficial option for qualifying governmental and nonprofit organizations, including:

- Local Municipalities
- Fire Departments
- Police Departments
- Public Schools

Although utilizing a COA provides greater flexibility, the process for obtaining a COA is lengthier and more difficult than obtaining a Part 107 Remote Pilot Certificate. However, if your department would be required to request one or more of the waivers listed in the previous section to fulfill your operations effectively, a COA may prove more beneficial. After the FAA and the applicable Air Traffic Control facilities authorize a COA, the government entity can benefit from the following:

- Operators can routinely fly within applicable regions of controlled airspace.
- Operators can fly under the special provisions named in their COA.
- Upon your COA authorization, the night waiver portion is automatically added to the COA without requiring additional documentation.
- In the event of a life safety incident, the UAV may be flown over people as long as all safety measures have been implemented.

COAs require proof of training on regulations for all pilots operating within the organization. While departments can develop their own training method, the FAA recommends that all operators hold a Remote Pilot Certificate. This provides proof of training and reduces agency liability as their training will not be as intensely scrutinized in the event of an incident.



▶▶▶ Recommendations Based on Department

When deciding if Part 107 or a COA is appropriate for your department, consider the size of your agency, the nature of your jurisdiction including airspace, and your department's mission requirements.

Personnel - Determine how many people in the agency are going to be trained. With a greater number of trained personnel needed, a COA with self-examining authority may be a better fit. After speaking with several FAA officials, even with a COA in place with self-examining authority, it is still recommended that all pilots earn at minimum a remote pilot certificate to establish proof of training.

Jurisdiction - The larger the jurisdiction, the greater area that the agency may continue operations. Smaller agencies that have limited or no controlled airspace are still able to operate solely under Part 107. With a night waiver, the COA will not be much of a benefit.

Local airspace - The lower classes of airspace, C and D, can be easier to secure a Part 107 airspace authorization. If the agency is able to acquire the Part 107 airspace authorizations, the COA will not be as beneficial. An agency operating in a more urban environment dealing with large Class B airspace or multiple airspaces would be better suited to a COA.

Mission requirements - With a great variety of missions for which your agency is going to use the UAS, a COA may become the better option, such as needing to operate in locations where an airspace authorization may be difficult or impossible to obtain during the incident. If you are only going to use the drone for traffic accidents along the highway and there is limited or no controlled airspace in the area, Part 107 is a better option.

Both Part 107 and a COA have advantages and disadvantages. Every drone program is unique – what works for your department might not work for another. Your department must either follow the COA as written and approved or have officers operate solely under Part 107 regulations and apply for waivers as needed. You should consider the advantages and disadvantages of both and how each will affect the overall goal of your program. Once that information has been established it will dictate which route you should choose. The following section highlights some recommendations regarding your department's size, jurisdiction, and mission requirements.

Agency: Small agency with less than 50 sworn officers, no aviation unit

Jurisdiction: Rural/suburban; no controlled airspace in local areas

Mission requirements: General UAS use for SAR, investigations, traffic accidents

Recommendation: Part 107 and add-on waiver for night operations

Agency: Small agency with less than 50 sworn officers, no aviation unit

Jurisdiction: Suburban; Class D or class C airport in part of jurisdiction

Mission requirements: General UAS use for SAR, investigations, traffic accidents

Recommendation: Part 107 with airspace authorization for local airspace, add-on waiver for night operations

Agency: Mid-size agency with 50-100 sworn officers, no aviation unit

Jurisdiction: Suburban/urban; Class C or Class B in part of jurisdiction

Mission requirements: General UAS use for SAR, investigations, traffic accidents, search warrants, SWAT

Recommendation: Begin with Part 107 with enabled airspace authorizations and night waiver. Depending on the success of authorizations, apply for blanket COA, then jurisdictional. Part 107 will allow your agency to begin limited operations and training while progressing towards full operations under a COA

Agency: Mid-size agency with 50-100 sworn officers, helicopter unit

Jurisdiction: Urban; Class C or Class B in majority of jurisdiction

Mission requirements: General UAS use for SAR, investigations, traffic accidents, search warrants, SWAT

Recommendation: Begin with part 107 for training while simultaneously applying for COA. Heavily controlled airspace may limit authorizations under Part 107 and would be better suited for COA

Agency: Large agency with 100+ sworn officers, helicopter unit

Jurisdiction: County-wide jurisdiction; multiple airports with various classes of airspace

Mission requirements: General UAS use for SAR, investigations, traffic accidents, search warrants, SWAT

Recommendation: Begin with part 107 for training and simultaneously begin application for COA. Multiple airports with different airspaces will be more easily navigated with an established COA

Local and State Legislation

The next stage in implementing a drone program is to establish your requirements under the FAA's jurisdiction. The FAA maintains exclusive jurisdiction over the National Airspace System. This limits local and state legislators from enacting laws to govern airspace use, training requirements, and aircraft maintenance requirements. However, laws traditionally related to state and local police power, such as land use, zoning, privacy, trespassing, and law enforcement operations, can be legislated at the state and local levels and affect the use of your UAV.

An agency wishing to use a UAV for law enforcement purposes must conform to local or state legislation that has been enacted. This usually involves topics of privacy and surveillance. If there are specific questions pertaining to your department's area of operation, contact your state's Attorney's Office. They can provide consultation on the best operation options for your department. The development and enactment of this legislation changes as rapidly as the technology evolves, so it is paramount to stay abreast of current laws and regulations that are already enacted, as well as those under development.

Program Budget Considerations

Your budget should be constructed to include all financial factors required for the UAV unit to efficiently function. The budget should include the selected aircraft, estimated maintenance costs, pilot training, insurance, and all required or additional accessories. Purchasing a \$3,000 drone and failing to include the cost of extra batteries will decrease the effectiveness of your UAV program. You should plan to have a reasonable expenditure cushion so the budget can cover unexpected purchases or replacement items. Do not create a short-sighted budget to increase the chance of approval.

If an individual in your department has experience writing grants, it is very worthwhile to inform them about the program. Many agencies have been able to partially or fully fund their UAV program under a government grant. The time spent researching and writing a grant can be extremely valuable. Obtaining grants is becoming increasingly competitive as more agencies develop UAV programs.

This next section will outline a number of components to factor into your budget including the aircraft, payloads, software, insurance, training, and other accessories.

Item	Estimated Cost
Equipment	\$15,000
Matrice 210 RTK	\$9,000
Matrice 210	\$5,000
Matrice 300	\$7,000
Inspire 1v2	\$4,000
Phantom 4 Pro	\$3,500
Mavic Pro	\$3,500
Payloads	
Zenmuse X4S	
Zenmuse X5S	
Zenmuse Z30	
FLIR Zenmuse XT	
Batteries	
Spare Batteries (each)	
Hard Case	
Matrice Case	
Inspire, Phantom, Mavic Case	
Display Screen	
Tablet	
Software	
Fleet Management (annual)	
Training (annual)	

Aircraft Selection

The planning that you have completed up to this point will simplify the drone purchasing process. There are multiple manufacturers that create different drones for various purposes, but if you are armed with in-depth knowledge regarding drone usage, you will be able to limit the options. DJI is the current leader in commercial drone manufacturing and is the preferred platform for many companies and organizations. This section will highlight some of the most popular DJI platforms.

Considerations

Flight time: The success or failure of an operation is determined in seconds. Valuable surveillance or search time can be lost when the drone is being regularly grounded to change or charge the battery. Since it is impossible to predict the duration of a public safety incident, a drone with superior flight time per battery is preferred.

Sensor system: In order for a law enforcement UAV to be truly valuable, it must be night-operations capable. Incidents can arise at any time and your equipment must be able to perform accordingly. A drone equipped with a thermal or FLIR camera system can be a valuable asset for your department.

Wind/Weather capability: Encountering inclement weather during a response is inevitable. Larger UAS platforms offer increased capabilities to maintain a steady hover in windy conditions. However, there are only a few weatherproof/water resistant options available.

Ease of deployment: The UAS must be readily deployed from a patrol vehicle. Folding drones can be compactly stored in a patrol vehicle and can provide a distinct time advantage over retrieving the UAS from a central location prior to deployment.

Most Popular UAS Models for Public Safety

DJI Matrice 200 Series

- Price: \$5,000 - \$15,000
- Weight: 10+
- Speed: 50 mph
- Flight time: ~27-38 minutes



There are currently three models in the Matrice 200 Series - Matrice 200, Matrice 210, and Matrice 210 RTK. Note that while each model has its own capabilities, payloads will need to be purchased separately for operation. The Matrice 200 models are capable of utilizing both a visual imaging payload and a thermal imaging payload (in the form of the Zenmuse XT system) simultaneously. Depending on the specific data required, they can be equipped with a visual imaging system with zoom capabilities for detailed component inspections, or an ultra-high-resolution camera that is well suited for orthomosaic photo capture. The Matrice 200 series models are water resistant and approved by the manufacturer for flights in light to moderate precipitation, provided all applicable regulatory weather minimums can also be satisfied.

DJI Inspire 1v2.0

- Price: \$1899.99
- Weight: 7 lbs
- Speed: 45-55 mph
- Flight time: 18 minutes



The Inspire offers a few advantages over DJI's smaller models. This aircraft is capable of operating in steady winds up to 30 mph. The Inspire's larger build allows for a heavier payload and more camera equipment. The standard camera can be upgraded to the Z3 that features a 7x digital zoom, the Z30 with 30x zoom, or a FLIR thermal system. The Inspire 1 can incorporate thermal imaging for more effective nighttime operations, and the latest version of the Inspire platform (Inspire 2) is capable of extended flight times up to 30 minutes – compared to the average 18 minute flight time of the original.

DJI Phantom 4 Pro

- Price: \$1499.99
- Weight: 3 lbs
- Speed: 45 mph
- Flight time: 30 minutes



The Phantom 4 Pro is the most advanced model of DJI's "flagship" platform. It is an easily transportable and deployable aircraft that provides unsurpassed still imagery capturing capabilities within its size class. It provides professional level performance with a compact, discrete, and versatile platform. Its quad-directional sensors and synthetic vision obstacle detection make it ideal for both training inexperienced operators and conducting sUAS flight operations in confined environments or areas where consistent GPS connections will not be possible. It has an integrated visual camera capable of capturing 4K video and 20 MP photographs, mounted on a 3-axis stabilized gimbal.

DJI Mavic Pro

- Price: \$999.99
- Weight: 1.6 lbs
- Speed: 40-45 mph
- Flight time: 28 minutes



The DJI Mavic Pro is a small, compact drone but is capable of performing many of the same operations as larger models. The Mavic Pro folds neatly and is easily transported in a small camera bag or carrying case. The Mavic Pro is possibly one of the stealthiest drones available. Compared to other models, it is very quiet and is capable of flying covert missions. The Mavic Pro's camera captures 4K video. An available aftermarket FLIR camera provides thermal capability as well. Propeller cages are also available allowing increased functionality for operations such as inspecting confined spaces.

Payloads

DJI has designed a number of payloads to accompany the Matrice 200 series and other models. Depending on your mission requirements, you may find some of these payloads to be useful or necessary for a successful operation.

Zenmuse X4S

The Zenmuse X4S is a digital camera and 3-axis stabilizing gimbal system. The Zenmuse X4S is capable of capturing still photographs at up to 20mp in multiple aspect ratios while using a mechanical shutter, all of which are ideal qualities for orthomosaic imagery capture. The X4S camera settings are very extensive and allow for complete customization based on environmental conditions and the type of operation being conducted. It is the ideal camera for any flight involving imaging data capture for aerial mapping/modeling using photogrammetry.

Zenmuse X5S and Zenmuse Z30

The Zenmuse X5S is a micro 4/3 D-SLR camera system and 3-axis stabilizing gimbal. When equipped with the appropriate lens, the X5S can be used to see close-up views of “areas of interest” while maintaining an extended stand-off distance for safety purposes, making it an ideal tool for many types of real-time or targeted focus operations. If a more powerful zoom capability is required, the Zenmuse Z30 provides a “plug and play” solution in the form of an ultra-high-resolution visual camera with a 30x optical zoom. There is a significant price difference between these two options so it may be appropriate to begin with the X5S and expand to the Z30 when determined necessary.

Zenmuse XT

The Zenmuse XT is a thermal/IR imaging camera system and 3-axis stabilizing gimbal with a high-resolution, high frame-rate unit with radiometric capabilities. Using this system under the proper environmental conditions will allow the operator to view temperature variations within a few degrees across small scale areas of a particular item/area of interest. The Zenmuse XT is the only thermal imaging specifically designed for integration with DJI aircraft like the Matrice.



Zenmuse X4S



Zenmuse XT



Zenmuse X5S



Zenmuse Z30

Software

Fleet Management - Several software companies provide solutions for fleet management. Small fleets may be able to use software for free while larger fleets can opt for a paid version. Fleet management software can allow you to keep records and set job specifications, plan multiple flight areas, assign pilots and equipment, see pilot flight hours and areas of expertise, upload pre/post flight and emergency checklists, and receive updates on missions while pilots log their flights from the field. [DJI](#) and [Skyward](#) both offer excellent fleet management software options.

Mapping and Modeling - You will find many uses for mapping software in your operations. Note that while mapping software will help you capture the necessary images to recreate a scene, maps that are processed online (in the cloud) cannot be used in court. Therefore, you will need to create maps manually. Both [Pix4D](#) and [DroneDeploy](#) are good software options for gathering the necessary imagery for creating maps while AutoCAD can help you develop maps offline.

Insurance

Hourly - Small divisions that deploy a UAV only a few times a month may opt for on-demand insurance like [Verifyfly](#). Policies cover up to \$10,000,000 of drone liability insurance with prices starting at \$10 an hour.

Annual Liability Coverage - Divisions that intended to deploy their unit at least once a week are better suited for annual liability coverage. Liability coverage only covers damage done by the drone. It does not cover the drone itself.

Annual Liability and Hull Coverage - Covering the cost of damage done by the drone as well as the drone itself can have a higher cost associated with it depending on the value and size of the aircraft.

Global Aerospace - [Global Aerospace](#) is the currently leading provided of aviation and UAS insurance. Call today for a quote at (937) 490-8500.



Comprehensive UAS Training

When a call goes out, there is no determining who will arrive on scene first. Therefore, it is recommended to have multiple officers trained as pilots, payload operators, or visual observers to improve response time and efficiency.

The decision to operate under a COA or Part 107 will determine some of your training requirements. If an agency is operating under a COA, it can “self-certify” its drone operators. However, the agency will accept the liability for training its pilots and any operations of the aircraft. They can elect to either internally develop their own training program that addresses all issues related to sUAS operation, aeronautical knowledge, emergency procedures, maintenance, inspection, etc. or they can elect to have all operators earn a Part 107 Remote Pilot Certificate as proof of training, which is currently the preferred option by the FAA.

You will also need to consider mission-specific training requirements depending on the use cases for which your department intends to use their drone.

DARTdrones Public Safety Training Program

DARTdrones offers a number of customizable training options for Police Departments. The following options will be fully available in 2018:

- Basic Flight Training
- M210 Flight Training
- Part 107 Test Prep
- COA and Waiver Consultation
- Search and Rescue Training
- Night Operations Training
- Thermal Training
- Accident Investigation Training
- Aerial Disaster Response Training
- Public Safety SOP
- LiPo Battery Safety
- Weather Assessment
- Equipment Care
- Site Assessment
- Emergency Procedures
- Visual Observers
- Radio Communications
- And more

DARTdrones Public Safety Instructors



Michael Uleski

Florida

Patrol Division Sergeant;
Law Enforcement Officer;
Firefighter; Emergency
Medical Technician



Chris Grazioso

Massachusetts

FEMA Urban Search
and Rescue; Emergency
Management Systems;
Damage Assessment



Roger Hall

Florida

Retired Firefighter; HazMat
Operations Team; Dive
Rescue Team; Licensed
Thermographer



Paul Matheson

Utah

Helicopter Air Ambulance
Operations; Search and
Rescue; Salt Lake City Air
Medical Company

Please note that this list is not comprehensive and costs will vary. If you would like a free consultation, please give us a call at 800.264.3907

Item	Estimated Cost	Your Quantity	Total
Equipment			
Matrice 210 RTK	\$15,000		
Matrice 210	\$9,000		
Matrice 200	\$5,000		
Inspire 1v2	\$2,000		
Phantom 4 Pro	\$1,500		
Mavic Pro	\$1,000		
Payloads			
Zenmuse X4S	\$600		
Zenmuse X5S	\$2,000		
Zenmuse Z30	\$9,000		
FLIR Zenmuse XT	\$6,000 - \$14,000		
Batteries			
Spare Batteries (each)	\$100 - \$400		
Hard Case			
Matrice Case	\$700		
Inspire, Phantom, Mavic Case	\$100 - \$400		
Display Screen			
Tablet	\$400 - \$800		
Software			
Fleet Management (annual)	\$1,000 - \$3,000		
Mapping (annual)	\$3,000 - \$5,000		
Insurance (per aircraft)			
On-Demand (hourly)	\$10+		
Liability Coverage (annual)	\$600 - \$800		
Liability/Hull Damage (annual)	\$1,000 - \$2,000		
Certification			
Part 107 Test Fee (per person)	\$150		
COA Professional Writing	\$2,000 - \$6,000		
Waivers Professional Writing	\$500 - \$3,000		
Training (per person)			
Part 107 Prep Online	\$250		
Part 107 Prep In Person	\$670		
Basic Flight Training	\$580		
Basic sUAS Competency Training	\$300		
Search and Rescue Training/Thermal	\$900		
Accident Investigation Training	\$900		
Disaster Response Training	\$500		

Developing an Internal Policy

When creating policy for your law enforcement UAV program, consider contacting the agencies you communicated with in the earlier stages. Other departments can provide policies they have developed for their own UAV units. Certain items are repeated in many departments' policies and others are very specific to the operating agency. Use the portions that benefit your department to help build your own custom policy.

Be cautious of writing a portion of the policy that could be easily violated during normal operations or prevent the UAV from being used effectively. If the policy is written, "Flight at night is prohibited," then flight at night is prohibited with no exceptions. Having the policy amended at 3 a.m. when you critically need to fly at night is not very feasible. Create a balanced policy that promotes a safe operating environment and allows successful UAV usage. The more accurate the initial policy is written, the less chance the policy will need to be rewritten or lead to a failed UAV program.

Information to Include

When writing a UAV policy, it is important to clearly answer the specifics regarding who, what, when, and how.

Who? - Determine the different positions within the UAV unit. Outline the required qualifications and respective job responsibilities for each. Some of these positions may include:

- Supervisor
- Pilots and aircrew members
- Instructor pilots
- Visual observers
- Maintenance officers
- Safety officers

What? - This section identifies the mission of the UAV unit. For some policies, this may consist of a simple mission statement, but others may want to provide more information regarding the complete objective of the unit.

When? - Determine when the department can and will deploy the UAV. Include the reasons for the deployment, the time of day, and the weather conditions. Some agencies may want to maintain a fairly open policy and allow the on-duty supervisor and remote pilot-in-command to decide when to utilize the UAV, while others might enact more restrictive requirements.

How? - This is the section to add agency-specific requirements. For example:

- How will the UAV be stored?
- How will flight time and maintenance be documented?
- How will evidence be handled?
- How will training be conducted?

Support of the Community

We are starting to see numerous articles and news stories involving drones. While some are very positive, others are unfortunately negative. Since most people receive their limited drone knowledge from the news, it's important to educate your community about the positive capabilities and use cases of your department's UAV. In order to reap the benefits of this emerging technology, it's crucial to gain as much support as possible and have your community on board from the start. Check out our resource on [The Lives Saved in 2017 Using Search and Rescue Drones](#) for great talking points!

►►► Organize a Community Event

In order to gain the community's trust, it is always better to show community members the benefits of using a drone rather than telling them. A fun public event can give the community a first-hand look at what the UAV is intended for, the capabilities of the UAV, and can resolve any community concerns. Make the event engaging and interactive and prepare a presentation for a city or county council meeting. Do not forget to address the UAV uses outside of the public safety divisions. For example, when the local insurance company learns that a drone can perform roof inspections and save them time, labor, and money, you will have gained a valuable ally in the community.

Next Steps

Launching a drone program takes time and long-term planning, but if you follow the steps in this guide, your department can start to build the foundation for a successful UAV program. Remember to begin by determining exactly why your department needs a UAV and whether your department will operate under Part 107 or a COA, establish your requirements under the FAA's jurisdiction, write your policy, train your officers, and buy your new department drone. We believe that every police department in the country is on the path of using UAV technology to benefit their community. If you have any questions or would like to learn more about training with DARTdrones, please call Mike McCann at 800.264.3907 Ext. 701 or visit www.dartdrones.com.

Have questions? We love to talk!
Give us a call for your free consultation today

1.800.264.3907