

**REPORT OF THE  
DEPARTMENT OF CRIMINAL JUSTICE SERVICES**

**Protocols for the Use of  
Unmanned Aircraft Systems  
(UAS) by Law-Enforcement  
Agencies**

**TO THE GOVERNOR AND  
THE GENERAL ASSEMBLY OF VIRGINIA**



**HOUSE DOCUMENT NO. 12**

**COMMONWEALTH OF VIRGINIA  
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# COMMONWEALTH of VIRGINIA

## *Department of Criminal Justice Services*

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November 1, 2013

To: The Honorable Robert F. McDonnell  
Members of the General Assembly

From: Garth Wheeler, Director 

Subject: Protocols for the Use of Unmanned Aircraft Systems by Law-Enforcement Agencies

It is my pleasure to provide you with the Protocols for the Use of Unmanned Aircraft Systems by Law-Enforcement Agencies developed pursuant to House Bill 2012 (2013). During the 2013 General Assembly Session, House Bill 2012 created a moratorium on the use of unmanned aircraft systems by law-enforcement agencies until July 1, 2015, with certain exceptions. The legislation also required the Department of Criminal Justice Services, in consultation with the Office of the Attorney General and other agencies, to develop model protocols for the use of unmanned aircraft systems by law-enforcement agencies. The results of the Department's work are included in the attached report.

If you have any questions about the protocols, please contact Teresa Gooch, Division Director, Division of Law Enforcement and Security Services (804-786-8730).





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# Unmanned Aircraft Systems (UAS) Protocols for use by Law Enforcement Agencies

October 7, 2013



In the 2013 session of the General Assembly, House Bill 2012 placed a moratorium on the use of unmanned aircraft systems by state and local law enforcement and regulatory entities until July 1, 2015, except in defined emergency situations or in training exercises related to such situations.

The moratorium does not apply to certain Virginia National Guard functions or to research and development conducted by institutions of higher education or other research organizations.

The bill requires the Department of Criminal Justice Services, in consultation with the Office of the Attorney General and other agencies, to develop protocols for the use of drones by law enforcement agencies and report its findings to the Governor and the General Assembly by November 1, 2013.

In April 2013, a workgroup of public safety and legal professionals was assembled to accomplish the Department of Criminal Justice Services requirement of this bill.

The Department of Criminal Justice Services would like to thank the following individuals for their professional contributions to this policy:

Colonel Steven Sellers, Albemarle County Police Department  
Sheriff Brian Roberts, Brunswick County Sheriff's Office  
Chief Doug Middleton, Henrico County Department of Police  
Ms. Shannon Dion, Office of the Attorney General  
Sheriff Steve Dye, Russell County Sheriff's Office  
SSA Marc Haalman, Virginia Department of Alcoholic Beverage Control  
Officer Greg Hall, Virginia Department of Game and Inland Fisheries  
Mr. David Summers, Virginia Department of Conservation and Recreation  
Lt. Colonel James Caruso, Virginia Department of Military Affairs  
Capt. Kirk Marlowe, Virginia Department of State Police  
1<sup>st</sup> Sgt. Angelo Woodhouse, Virginia State Police

Virginia Department of Criminal Justice Services staff:

Teresa Gooch, Director, Division of Law Enforcement  
Sam Hoffman, Standards, Policy and Homeland Security Manager  
Gary M. Dillon, Manager, Virginia Accreditation Center

## Definitions

**Model Aircraft** – Remote controlled aircrafts used by hobbyists, which are built, produced, manufactured and operated for the purposes of sport, recreation and/or competition. Model aircraft use is not regulated at the federal level and many UAS hobbyist belong to the Academy of Model Aeronautics, a professional association representing the interests of the hobby.

**Unmanned Aircraft System (UAS)** – The preferred industry definition of aircraft designed to navigate in the air without an on-board pilot. The authorization to use UAS is regulated by the Federal Aviation Administration (FAA). For the purposes of this policy guideline, UASs are non-weaponized.

**UAS Flight Crew Member** – A pilot, observer, payload operator or other person(s) assigned duties for a UAS flight mission or training exercise.

**UAS Pilot** – A person exercising control over a UAS during flight.

**VTOL** – Vertical take-off and landing

## Potential Law Enforcement Applications

Accident Investigation

Missing Persons

Search and Rescue

Drug Investigations

Disaster Management

Crowd Control

Explosive Ordnance Disposal

Hostage and Barricade Situations

CBRNE Incident (*chemical, biological, radiological, nuclear, and explosives*)

Forensic Scenes

Support for Arrest Warrants

VIP Security Support

Perimeter Security

Low Cost Aerial Imagery

Enhance Situational Awareness

## Protocols Based upon Legislation

Under current Virginia legislation, UASs cannot be used by law enforcement agencies for anything other than specified types of search and rescue or training. This legislation places a moratorium on their use, with exceptions, until July 1, 2015.

Protocols for the use of UASs currently must mirror those situations specified in that legislation, as listed below:

- Amber Alert

- Senior Alert

- Blue Alert

- Search or Rescue (To alleviate an immediate danger to a person)

- Training exercises related to these uses

## **Benefits to Officer and Community Safety**

Unmanned Aerial Systems (UAS) do not require a qualified pilot on board to operate the UAS or the attached equipment such as cameras, FLIR (forward looking infrared), etc. UAS operators and system operators remain safely on the ground reducing their exposure to threats.

UASs are able to enter environments, which may be hazardous to pilots of manned aircraft. These threats may be natural or manmade. They include hazardous waste, fire, smoke, threatening weather, and ground fire from perpetrators.

UASs provide superior situational awareness while minimizing the danger to which operators are exposed.

UASs and trained operators minimize response time to most emergency situations. UASs can be launched from a safe location within close proximity to the scene.

UASs designed for law enforcement come in two categories, vertical takeoff and landing (VTOL), and fixed wing. This allows for their use in different environments that may restrict the size of the launch area. VTOL may be launched and landed in a very limited space.

UAS operators should be in direct contact with incident command, enhancing communication between command and air assets.

Community safety is enhanced by the rapid response of air assets to an emergency. Many UASs designed for law enforcement use can be launched within five minutes. In most cases manned aircrafts must take off and land at an airports under the direction of air traffic controllers, which can adversely delay response time.

UASs designed for law enforcement use are small enough to be stored in containers, which are the approximate size of a small backpack, or in small cases that can be carried in patrol vehicles, thereby minimizing response time.

Agencies wishing to utilize UASs must obtain a Certificate of Authorization (COA) from the Federal Aviation Administration (FAA) to ensure compliance with federal requirements thus ensuring UASs are operated in accordance strict federal guidelines.

## Cost Benefit

The cost benefit of utilizing a UAS designed for public safety as compared to manned aircraft is substantial. It should be noted that UASs are not designed to take the place of manned aircraft. The use of UASs would supplement the aerial capabilities of a law enforcement agency to provide enhanced service to the public.

The Metro Aviation Unit, a joint effort by the City of Richmond, Chesterfield County, and Henrico County, operates four fixed wing aircraft (two Cessna 172s and two Cessna 182s). The average hourly cost to operate each of these aircraft is \$150. The cost of purchasing a manned aircraft similar to those being utilized by the Metro Aviation Unit is in excess of \$800,000. These figures do not include personnel costs.

According to the Association for Unmanned Vehicle Systems International (AUVSI), the average hourly cost of operating a UAS designed for public safety use ranges from \$30 to \$50. The costs of UASs designed for law enforcement ranges from a few hundred dollars to over \$40,000. These figures do not include personnel costs.

## Training

The FAA has developed the rules for the public's operation of UASs. They can be found in FAA Memorandum "Interim Operational Approval Guidance 08-01 Unmanned Aircraft Systems Operations in the U. S. National Airspace".

# Agency model policy and operational procedures

## Community Engagement

Law enforcement agencies interested in integrating UAS technology in their operations should actively engage their communities in an effort to educate the public. Due to extensive media coverage of military drone use, there is widespread fear of similar deployment tactics on Virginia soil. Additionally, civil liberties organizations have concerns about violations of 4<sup>th</sup> Amendment rights.

1. Law enforcement agencies desiring to use UAS technology should first determine how they will utilize this technology, including the costs, benefits and risks.
2. Law enforcement agencies should then engage the community early in the planning process, including their governing body and civil liberties advocates.
3. It's imperative that the use of UAS technology be as transparent as possible to ensure the community that the law enforcement agency is in full compliance with the US Constitution, federal, state and local law governing search and seizure.
4. Law enforcement agencies should provide an opportunity for the community to review and comment on agency procedures for the use of UAS.
5. Transparency is the key to successful community support. For that reason, it is recommended that agencies work with the local media to help facilitate community education and dialogue.

## System Requirements

1. Agencies deploying UAS technology shall maintain a flight log, which captures flight time, duration, date, supervisory authorization and reason for flight. UAS vehicles equipped with digital logs/counters are an acceptable alternative.
2. It is strongly encouraged that UAS vehicles should be painted in a high visibility paint or display high visibility markings, if the construction of the UAS permits. This will facilitate line-of-sight control by the pilot and allow for easier ground monitoring. In situations where covert operations are authorized (high risk search/arrest warrant), high visibility markings may not be optimal.
3. Equipping law enforcement UAS with weapons of any kind is strictly prohibited.
4. Law enforcement UAS technology shall be equipped with "auto return" technology, which automatically returns the vehicle to the launch location if radio connectivity is lost. For this reason, the use of "home built" aircraft or RC model aircraft is strongly discouraged.

## Operational Procedures

1. All law enforcement UAS vehicles require a Certificate of Authorization (COA) from the Federal Aviation Administration (FAA). OA law enforcement agency interested in deploying UAS technology should contact the FAA early in the planning process to determine the requirements of a COA.
2. UAS vehicles will only be operated by personnel, both pilots and crewmembers, who have been trained and certified in the operation of the system. All law enforcement agency personnel with UAS responsibilities, including supervisors and commanders, must complete training in the policies and procedures governing their use.

3. All flights will be approved by a supervisor and must be for a legitimate public safety mission, training or for demonstration purposes. Supervisory authorization shall be documented in the flight log.
4. A Virginia standardized flight log shall be used.
5. An authorized supervisor/commander will conduct a quarterly audit of flight logs. Unless as restricted by the Virginia FOIA, all flight logs and quarterly audits will be made available to the public upon request. Public agencies are encouraged to publish flight log information on their webpages.
6. Agencies must develop a disciplinary policy, which addresses unauthorized use of UAS technology.
7. Unless community or officer safety is compromised, agencies are encouraged to publically notify neighborhoods prior to using an UAS vehicle. The use of Reverse 911 telephone calls is a good example of a notification procedure.
8. When the primary mission is to collect evidence of a criminal incident AND the UAS vehicle will intrude upon the reasonable expectation of privacy, the law enforcement agency should consult with their Commonwealth's Attorney about obtaining a search warrant in advance of deployment.

## Legal Considerations

### Federal Legislation Governing the Use of UASs

The FAA Modernization and Reform Act of 2012 (49 U.S.C. § 40101, et seq.) is the only legislation passed by the United States Congress on the topic of unmanned aircraft systems. The act sets out requirements for new laws and regulations concerning unmanned aircrafts. The requirements are to ensure public safety and uniformity throughout national airspace and that civil unmanned aircraft systems include a sense and avoid capability. The act defines different types of unmanned aircraft and aircraft systems including:

1. **Unmanned aircraft** – an aircraft operated without the possibility of direct human intervention from within or on the aircraft.
2. **Small unmanned aircraft** – an unmanned aircraft weighing less than 55 pounds.
3. **Unmanned aircraft system** – an unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) required for the pilot in command to operate safely and efficiently in the national airspace system.
4. **Public unmanned aircraft system** – an unmanned aircraft system meeting the qualifications and conditions required for operation of a public aircraft.

Law enforcement agencies should be aware that laws and regulations related to the use of UAS are evolving and what may be true today is not necessarily true tomorrow. For example, the FAA is expected to release proposed rules later this year establishing policies, procedures and standards for small UAS which law enforcement may use. Additionally, there are several bills under consideration by the U.S. Congress, including: Preserving American Privacy Act of 2013, Preserving Freedom from Unwarranted Surveillance Act of 2013, Drone Aircraft Privacy and Transparency Act of 2013, and Safeguarding Privacy and the Fostering Aerospace Innovation Act of 2013. Enactment of these bills will impact law enforcement agencies' use of UASs and agencies should diligently monitor the law for future changes.

### Federal Communications Commission Considerations

The Federal Communications Commission (FCC) regulates the use of radio frequencies, which UASs depend upon for operation. Frequencies allow the ground operator to control the device and collect surveillance data but are subject to interference. Some UAS systems available at retail stores include FCC approved frequencies that are shared by many users, which means reliability and security of the system may be at risk. For example, a UAS operating on a shared frequency may not maintain adequate connectivity between the device and the ground operator, thereby increasing the risk of losing control of the device. If control is lost, the device may crash into the ground or other property. Shared frequencies are also not secure, meaning a sophisticated user could intercept the frequency and access data sent from the UAS to the ground operator. Both scenarios involve liability issues for agencies which should be thoroughly considered before utilization of a UAS.

On the other hand, some UAS manufacturers have safeguards in place to decrease the risk of frequency interference. Some systems use encrypted communications and technology to prevent detection and unauthorized access. "Pairing" a UAS and ground control station creates a unique line of communication, which prevents outside linkage to the system. Other safeguards include key recognition, monitoring for interference and lost link modes.

If an agency wants a more secure frequency with which to control their UAS, it should petition the FCC for a designated spectrum for law enforcement. Doing so does not guarantee protection from interference, as the device itself must have built in safeguards to protect against interference and consequence mitigation in the event there is a communication breach. In summary, law enforcement agencies should thoroughly research various types of UAS systems to determine which model offers the best security measures for its intended use. Agencies are encouraged to contact the Virginia State Police Communications Division for additional guidance.

## Freedom of Information Act

The Virginia Freedom of Information Act (FOIA) “ensures the people of the Commonwealth ready access to public records in the custody of a public body or its officers and employees, and free entry to meetings of public bodies wherein the business of the people is being conducted.” All public records are presumed open unless a public body properly invokes an exemption and does not disclose the records. Va. Code §§ 2.2-3700-3714. Law enforcement agencies should consider the applicability of statutory exemptions for their public records regarding UASs. For example, an agency may elect to withhold records contained in criminal investigative files which include photographs taken by an UAS or specific tactical plans utilizing UAS technology. See Va. Code 2.2-3705.2 and 2.2-3706. Other exemptions may apply depending on the situation and agencies are advised to consult with their legal counsel in drafting responses to FOIA requests.

Agencies with specific FOIA questions are encouraged to contact the Virginia Freedom of Information Advisory Council at <http://foiacouncil.dls.virginia.gov/> or (804) 225-3056.

## Image Retention

The Government Data Collection and Dissemination Practices Act (Va. Code §§ 2.2-3800 – 3809), or the “Data Act,” addresses how agencies handle personal information obtained through various methods. The Data Act defines personal information as information providing a basis for inferring personal characteristics, such as “photographs or things done by or to such individual.” The Data Act specifies that personal information shall not be collected unless need for the information has been clearly established, shall be relevant for the purpose it is collected, shall not be misused, and must be collected within the confines of the law. However, the Data Act does not apply to personal information systems maintained by the Department of the State Police or other police departments that deal with investigations and intelligence gathering relating to criminal activity. (Va. Code § 2.2-3802(7)).

A recent Attorney General opinion addresses the use of license plate readers and whether information obtained by these devices can be kept by law enforcement. (2013 Op. Va. Att’y Gen. No. 12-073, *available at* [www.ag.virginia.gov](http://www.ag.virginia.gov).) The answer depends on whether the information collected is for a specific criminal matter, which is exempt from the Data Act, or whether the information is collected for potential future use, which is subject to the Data Act. As applied to law enforcement’s use of UAS to collect images, if the images are obtained for no particular reason, the Data Act prohibits law enforcement from storing the information for future use. However, if the UAS is deployed for a particular purpose directly related to “investigations and intelligence gathering related to criminal activity” the Data Act does not apply.

## Federal Aviation Administration

Law enforcement agencies utilizing UAS technology must comply with federal laws and regulations which currently require public entities, such local police departments, to obtain a Certificate of

Authorization or Waiver (COA) before using an UAS in civil airspace. The primary purpose of the COA is to avoid in-air collisions with other objects in the air. Applicants apply online and the FAA evaluates the proposed operation for safety feasibility. For a complete listing of regulations, visit: [www.faa.gov/regulations\\_policies/faa\\_regulations](http://www.faa.gov/regulations_policies/faa_regulations)

The COA allows an operator to use a defined area of airspace and includes special provisions unique to the proposed operation. COAs usually are issued for a specific period and most require the applicant to coordinate with an air traffic control facility. Because UAS technology cannot currently comply with “see and avoid” rules that apply to all aircraft, a visual observer must maintain visual contact with the UAS and serve as its “eyes” when operating outside airspace restricted from other users.

**Applying for a COA:** <https://ioeaaa.faa.gov/oeaaa/>

**Who may apply for a COA?** Only public agencies operating an unmanned aircraft. A public agency is any agency that operates a public aircraft (14 CFR Part 1.1). If you receive funding from the federal government at some level, you are probably a public agency. A public agency can never operate under the guidelines of Advisory Circular 91-57 (Model Aircraft Operating Standards).

**Additional Resources:** *“Unmanned Aircraft Systems Operations in the U.S. National Airspace System – Interim Operational Approval Guidance”* provides FAA guidance for public use of unmanned aircraft by defining the COA evaluation process.  
[www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/syst\\_emops/aaime/organizations/uas/coa/faq/media/uas\\_guidance08-01.pdf](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/syst_emops/aaime/organizations/uas/coa/faq/media/uas_guidance08-01.pdf)

## 4<sup>th</sup> Amendment Considerations

The 4<sup>th</sup> Amendment protects individuals and their homes from unreasonable, warrantless searches and seizures by government actors. People have certain expectations of privacy in their property, particularly in their homes. Several doctrines have emerged by courts in balancing individual privacy and the need for government to keep people safe. The plain view doctrine authorizes warrantless searches when an officer, in a lawful place, can plainly see an item of incriminating character. The open fields doctrine recognizes that a person has less expectation of privacy outside of his home.

Applying the 4<sup>th</sup> Amendment to UAS surveillance is new territory for both law enforcement and the courts. The constitutionality of this technology as used by law enforcement will depend on many factors, including how and where the surveillance takes place. Whether a target is at home or in a public place will affect a court’s analysis of how strong his expectation of privacy is. Other factors include the type and length of surveillance. The following cases primarily focus on manned airplane and helicopter flights but may be helpful to law enforcement agencies navigating the uncharted waters, or airspace in this instance, of using UAS technology in a manner that respects the 4<sup>th</sup> Amendment.<sup>1</sup>

## Privacy in the Home

*Kyllo v. U.S.*, 533 U.S. 27 (2001). Receiving tips from an informant, a federal agent acting without a warrant used a thermal imaging device to view Kyllo’s home to help determine whether he was growing marijuana inside. Based on information yielded by the device, a warrant was obtained to search the home.

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<sup>1</sup> See “*Drones in Domestic Surveillance Operations: Fourth Amendment Implications and Legislative Responses*,” by Congressional Research Service, April 3, 2013, at [www.fas.org/sgp/crs/natsec/R42701.pdf](http://www.fas.org/sgp/crs/natsec/R42701.pdf) for additional information.

The Supreme Court ruled that use of the thermal imaging device to gather information about the inside of the home constituted a search under the 4<sup>th</sup> Amendment.

## Property Rights

*Florida v. Jardines*, 569 U.S. \_\_\_ (2013). Officers brought a narcotics dog to defendant's front porch, which alerted for the presence of drugs. A search warrant was obtained for the home and marijuana plants were subsequently found. Using a property-rights analysis, the court concluded that using a trained dog on the front porch of a home was a physical intrusion on defendant's 4th Amendment rights. Unlike simply knocking on the door, which is a customary and routine act, bringing a police trained dog is neither customary nor routine. Because the officers only learned about the drugs by physically intruding on the defendant's property in order to gather evidence, an unlawful search occurred. (This case may be applicable if UASs are used in close proximity to homes in order to peer into windows.)

## Open Fields and Manned Aerial Surveillance

*Wellford v. Virginia*, 227 Va. 297 (1984). After receiving a tip that Wellford was growing marijuana plants, law enforcement used a helicopter to fly 1000 feet above his fields and observed marijuana plants. Defendant was arrested after being observed caring for the plants. The court ruled that the open field was not part of the home's curtilage and therefore defendant had no expectation of privacy.

*California v. Ciraolo*, 476 U.S. 207 (1987). After receiving a tip that Ciraolo was growing marijuana plants in his backyard, which was shielded from view at ground level with a fence, law enforcement conducted warrantless aerial surveillance at 1000 feet. Officers, using nothing more than their "naked eyes," observed marijuana plants in the yard, which led to a search warrant of the property. The naked-eye aerial surveillance did not violate a reasonable expectation of privacy because it "took place within public navigable airspace in a physically nonintrusive manner."

*Giancola v. West Va. Dep't of Pub. Safety*, 830 F.2d 547 (4th Cir. 1987). Aerial surveillance from a helicopter flying at 100 feet did not violate the 4<sup>th</sup> Amendment. The aerial surveillance tactics were not unreasonably intrusive after considering the total number of surveillances conducted (two), the frequency of the surveillance, the length of each surveillance, altitude, number of aircraft (one), the degree of disruption of legitimate activities on the ground, and compliance with flight regulations.

*Florida v. Riley*, 488 U.S. 445 (1989). After receiving an anonymous tip that marijuana was growing in a greenhouse located ten to twenty feet behind a mobile home, law enforcement flew a helicopter over the property at an altitude of 400 feet. Marijuana was observed growing inside the greenhouse, which led to the issuance of a search warrant. In denying the motion to suppress the Court reasoned the helicopter was flying at a legal altitude, met all flight regulations, and that any member of the public could have legally taken the same flight and made the same observations. Therefore, Riley had no reasonable expectation of privacy in the greenhouse.

*U.S. v. Breza*, 308 F. 3d. 430 (5<sup>th</sup> Cir. 2002). During a drug interdiction helicopter flight, law enforcement officers observed what they thought were marijuana plants in an area surrounding Breza's dwelling. After descending to approximately 200 feet, this suspicion was confirmed and officers on the ground, without a warrant, searched the garden and seized hundreds of marijuana plants. The 4<sup>th</sup> Circuit held that the surveillance did not violate the 4<sup>th</sup> Amendment because the flight fully complied with all laws and regulations and were a regular occurrence. The court also upheld the warrantless entry because the defendant was observed burning the marijuana plants.

# Agency/Operator Certifications

## Pilot & Observer Certifications/Qualifications

It should be noted that all certifications/qualifications herein are applicable to operations of UAS at and below 400 feet. All pilot and observer training records will be maintained by the agency employing those persons and are subject to state and federal inspection.

### **Pilots:**

Each UAS pilot must be an FAA-certificated airman or successfully pass either the FAA's pilot knowledge exam or complete an FAA-approved UAS pilot training curriculum. However, if operating in controlled airspace, additional certifications are required. *Note:* Certification does not require the practical flight requirements of a manned aircraft.

Pilots will receive training specific to the UAS to be operated. This training must be conducted and documented by a qualified instructor designated by the proponent as being the individual(s) trained and certified by the manufacturer to provide training on the specified UAS.

Pilots must not perform duties for more than one UAS at a time and are not allowed to perform concurrent duties both as pilot and observer.

Pilots are prohibited from flying any law enforcement mission without having completed three UAS flight events within the preceding 90 days.

Law enforcement standard operating procedures (SOP) must include Crew Resource Management (CRM) techniques to ensure the highest possible situational awareness and effective communication by pilots during each flight operation. Pilots must be trained in these procedures and techniques. *Note:* CRM training involves a wide range of knowledge, skills and attitudes to include communications, situational awareness, problem solving, decision making, and teamwork. CRM is defined as a management system which makes optimum use of all available resources – equipment, procedures and people – to promote safety and enhance the efficiency of operations.

All pilot training must be conducted and documented by a qualified instructor designated by the proponent as being an individual trained and certified.

Pilots must be medically qualified and have in their possession a second class (or higher) airman medical certificate that has been issued under 14 CFR Part 67, Medical Standards and Certification.

Pilots are subject to the provisions of 14 CFR § 91.17, Alcohol and Drugs.

### **Observers:**

Observers must successfully complete a UAS observer training curriculum that includes, at a minimum, instruction on rules and responsibilities described in 14 CFR § 91.111, Operating Near Other Aircraft, 14 CFR § 91.113, Right of Way Rules, Cloud Clearances, and that emphasizes "See and Avoid" concepts and fundamental radio communications, including standard ATC phraseology. Observer training must include thorough instruction regarding manned aircraft traffic conflicts and pilot communications for any maneuvers/actions required to avoid traffic conflicts.

Observers must not perform duties for more than one UAS at a time and are not allowed to perform concurrent duties both as pilot and observer.

Law enforcement standard operating procedures (SOP) must include Crew Resource Management (CRM) techniques to ensure the highest possible situational awareness and effective communication by observers during each flight operation. Observers must be trained in these procedures and techniques.

All observers training must be conducted and documented by a qualified instructor designated by the proponent as being an individual trained and certified by the manufacturer to provide training on the specified UAS.

Observers must be medically qualified and have in their possession a second class (or higher) airman medical certificate that has been issued under 14 CFR Part 67, Medical Standards and Certification.

Observers are subject to the provisions of 14 CFR § 91.17, Alcohol and Drugs.

It should be noted that the FAA is working to change the requirement for a second-class airman medical certification to self-certification as to being healthy to fly and a letter from a competent medical authority certifying the operator's eyesight to the second-class medical certification requirements of correctable to 20/20.

Memorandum of Understanding Between Federal Aviation Administration and the U.S. Department of Justice, Office of Justice Programs, National Institute of Justice Concerning Operation of Unmanned Aircraft Systems by Law Enforcement ([www.alea.org/assets/pressReleases/assets/1805/DOJ%20FAA%20MOU.pdf](http://www.alea.org/assets/pressReleases/assets/1805/DOJ%20FAA%20MOU.pdf))

## Regulatory Considerations

24VAC5-20-100. Operation of aircraft.

All aircraft operations shall be conducted in conformity with Federal Aviation Regulations as amended from time to time and violation of such federal regulations shall also constitute a violation of this chapter.

Statutory Authority

§§ 5.1-2.2 and 5.1-2.15 of the *Code of Virginia*.

Historical Notes

Derived from VR165-01-02:1 § 2.9, eff. September 9, 1992.

