CA Department of Justice Division of Law Enforcement

Unmanned Aerial Systems (UAS)

Operations Manual

Preface

The following procedures are intended to promote the safe, efficient and lawful operation of the California Department of Justice (DOJ) Unmanned Aerial System (UAS) Program. These procedures were created to supplement, not replace, Division of Law Enforcement (DLE) General Order-GO-2022-03 and DOJ Law Enforcement Policy and Procedure Manual section 607, UAS Operations.

Mission Statement

The mission of DOJ personnel training in Unmanned Aerial System (UAS) operations is to ensure the following of procedures intended to promote the safe, efficient, and lawful operation of the UAS in order to protect the lives and property of citizens, law enforcement personnel, and personnel assisting law enforcement. DOJ personnel and UAS operations are in full compliance with applicable laws and regulations including, but not limited to, applicable state and federal statutes and Federal Aviation Administration (FAA) regulations.

The UAS supports law enforcement in enforcement operations, collection of evidence (photographs or video), crime scene documentation, location mapping and accident reconstruction, situational awareness, aerial surveillance of suspected criminal activity, disaster response, fire response, hazard response, reconnaissance of scene/location in anticipation of an enforcement operation, and the inspection of infrastructure.

Definitions

Unmanned Aerial Vehicle (UAV): An unmanned aircraft of any type that is capable of sustaining directed flight, whether preprogrammed or remotely controlled.

Unmanned Aerial System (UAS): The entire system that makes a UAV operate, including ground control, all of the supporting or attached systems designed for gathering information through imaging, recording, or any other means, the transmission systems, the software, and the pilot controlling the UAV.

Protection of Rights and Privacy

The UAS Program is subject to the First, Fourth, Fifth, and Fourteenth Amendments of the Constitution of the United States, the California Constitution, state and local privacy laws, and the state's police power. The importance of privacy, especially in one's home, is a key consideration when deciding to deploy a UAV, and while operating the UAS. Absent a warrant or an exception to the Fourth Amendment's warrant requirement, UAV pilots, assigned visual observers, and anyone assisting in UAS operations must adhere to FAA regulations and shall not negligently record or transmit images, audio, or data of any location where a person would have a reasonable expectation of privacy (e.g., residence, yard, enclosure). The UAS flight crew shall take reasonable precautions to avoid inadvertently recording or transmitting images of area(s) where

¹ Reference https://www.faa.gov/uas for applicable FAA regulation.

there is a reasonable expectation of privacy. Reasonable precautions can include, for example, deactivating or turning imaging devices away from such areas or persons during UAS operations.

The UAS video surveillance equipment shall not be used for the following activities:

- 1. To conduct random surveillance not related to a criminal investigation and not for training purposes.
- 2. To target a person or group of persons based solely on actual or perceived characteristics, such as race, ethnicity, national origin, religion, sex, sexual orientation, gender identity or expression, economic status, age, cultural group, or disability.
- 3. To harass, intimidate, or discriminate against any individual or group.
- 4. To conduct personal business of any type.

The UAS shall in no circumstances be adapted for use as a weapon.

Additionally, UAS-recorded data should not be collected, disseminated or retained solely for the purpose of monitoring activities protected by the U.S. Constitution, such as the First Amendment's protections of religion, speech, press, assembly, and redress of grievances (e.g., protests, demonstrations), or the California Constitution. In the event that UAS is to be deployed pursuant to section 607.5 of DOJ Law Enforcement Policy and Procedure Manual, UAS Operations, and activities protected by the Constitutions of the United States and California may be impacted or surveilled, prior written approval of the Division of Law Enforcement (DLE) Chief is required.

The use of facial recognition software is prohibited, unless authorized in writing by the DLE Chief and the Chief Deputy Attorney General.

All photographs or video obtained from the UAS during field operations should be documented in an investigation report and booked as evidence in accordance with DOJ Policy and Procedures Manual section 804.7.4 Processing of Photographs, Video and Digital Media.

Use of vision enhancement technology (e.g. thermal and other imaging equipment not generally available to the public) is permissible only for viewing areas where there is no protectable privacy interest. If a protectable privacy interest is identified or may be implicated, vision enhancement technology may only be deployed pursuant to a search warrant or other court order, and after a DOJ Deputy Attorney General from the Division of Criminal Law's Special Prosecutions Section or other assigned prosecutor is consulted.

Organization

The UAS Program is comprised of the UAS Program Coordinator, UAS Committee, and the UAS flight crew.

UAS Program Coordinator

The UAS Program Coordinator is appointed by the Bureau Director or their designee. The Program Coordinator is responsible for the management of the UAS Program and leads the UAS Committee. The Program Coordinator ensures policies and procedures conform to current laws, regulations, and best practices for the proper use of a UAS by law enforcement. For additional information about the UAS Program Coordinator's responsibilities, see DOJ law Enforcement Policy & Procedures Manual, Section 607.4.

The Program Coordinator reviews the flight logs and documentation from UAS operations on a quarterly basis. The UAS Program Coordinator shall provide an annual report to the DLE Chief.

UAS Committee

The UAS committee has a chairperson, who is the UAS Program Coordinator. The committee consists of a representative from each bureau within the DLE and the Division of Medical Fraud and Elder Abuse (DMFEA), as well as DOJ's UAS pilots. The UAS committee meets on a quarterly basis to coordinate the development of the UAS program, reviews and evaluates UAS policies and procedures, and makes recommendations to DOJ on UAS operations.

UAS Flight Crew

The UAS flight crew works as a team to operate the UAV safely and effectively. The number of Special Agents (Agents) and their roles on a UAS flight crew vary by mission. The roles on a UAS flight crew can include:

Operator: The operator is an FAA licensed UAV pilot, pursuant to Title 14 of the Code of Federal Regulations Part 107, responsible for coordinating and de-conflicting the use of multiple UAVs in close proximity and/or in secession. The operator typically is only needed in large or complex operations.

Remote Pilot in Command (RPIC): The RPIC is an agent exercising remote control over an unmanned aircraft during flight. The RPIC is ultimately responsible for the operation and solely for the input of commands/piloting during flight. The RPIC is licensed by the FAA as a 14 CFR Part 107 compliant pilot and will have been approved by their division (DLE or DMFEA) and bureau representative(s) on the UAS Committee to conduct UAS operations for DOJ. It is recommended that the RPIC have at least one year experience as an agent prior to being approved as an RPIC.

Visual Observer (VO): The VO is a person who is designated by the remote pilot in command and the person manipulating the flight controls of the small UAS to see and avoid other air traffic or objects aloft or on the ground. Further, the VO should be an agent with the primary duty of maintaining direct line of sight observation of the UAV and communicating the presence of any hazards with the UAS flight crew. While any agent may serve as a VO, it is recommended an agent serving as a VO has previously trained with the UAS flight crew prior to the operation.

UAS Deployments

Requests for the deployment of UAS aircraft and flight crews must be submitted through the UAS Program Coordinator. The request may be submitted at any time and should provide the following information:

- 1. The case number and purpose for the UAS operation.
- 2. The case agent/team leader on the case as a contact.
- 3. The address where the UAS will be flown.
- 4. The date and time of the intended operation.
- 5. The anticipated duration of the flight.
- 6. Search Warrant requirements and review of search warrants.

Teams with specifically assigned DOJ UAS aircraft and flight crews may conduct UAS operations in support of their team with the authorization of the on-scene supervisor.

Prior to any UAS operation, the flight crew will familiarize themselves with all available information regarding the requested operation and coordinate with the case agent to develop a pre-flight plan for a safe and successful operation. All UAS operations must be conducted in accordance with DOJ Policy and FAA regulations. The RPIC and the UAS Program Coordinator are the final authority regarding UAS operations.

Pre-flight Planning

The UAS flight crew shall familiarize themselves with all available information concerning the UAS operation including, but not limited to, the FAA airspace classification, the weather conditions, hazards, deployment goals, etc. Prior to each UAS operation, the UAS flight crew will review the FAA Notice to Air Missions (NOTAM) for temporary hazards in the area of the planned operation.

Pre-flight Inspection / Checklist

The RPIC is responsible for a thorough pre-flight inspection of the UAS. UAS flight crews shall use a checklist during the pre-flight inspection as it has been recognized that the use of a checklist is a significant method to prevent UAS accidents. The pre-flight inspection should include the following:

- 1. Confirm that airspace, NOTAM and weather conditions allow for flight
- 2. Request and confirm flight clearance electronically through an FAA-approved application downloaded by the user to their mobile device
- 3. Check launch zone for hazards
- 4. Inspect UAS airframe and propeller check
- 5. Battery check (seated and charged)
- 6. Sensor check (covers removed / full range of motion)
- 7. Voltage check
- 8. Remote Control unit check (charged / connection to UAS)
- 9. Lost Link Procedures properly set for the mission

- 10. Establish minimum safe altitude
- 11. Takeoff and joystick check

Post-flight Inspection

The RPIC is responsible for a post-flight inspection of the UAS, and for inventory and proper storage of equipment at the completion of an operation.

Personal Equipment

The UAS flight crew is armed during a UAS operation and is equipped with radios to communicate with other team members. UAS flight crew will wear appropriate clothing for the type of UAS operation being conducted. However, the UAS flight crews supporting tactical operations should be attired in their enforcement uniforms.

UAS Flight Logs

Accurate UAS flight logs are essential for management of the DOJ UAS Unit. Within 24 hours after a UAS operation has been completed, the RPIC is responsible for completing the digital flight log and uploading the completed log to DroneSense, or another department-approved software platform used to manage successful public safety UAS programs. The statistical information obtained from these logs is the basis for scheduling UAS aircraft maintenance and the quarterly and annual reports to the UAS committee. RPICs are required to maintain a secondary flight log as a backup to the digital logs.

Photographs, Video and Digital Media

UAS aircraft are equipped with high-definition sensors capable of capturing video and photographic images as well as infrared video and images. All photographic and video evidence obtained during a UAS operation is documented in a crime report, processed and booked into evidence pursuant to the DOJ Policy and Procedure Manual section 804.7.4, processing of photographs, video and digital media evidence.

Training

Maintaining a professional level of competency is key to continued safe operations. DOJ UAS flight crews will train together on a quarterly basis. Prior to this training, the UAS Program Coordinator approves the lesson plan for the quarterly training. The lesson plan includes a review of the UAS Policy and Procedure, State and Federal Statutes, and FAA regulations. The lesson plan will also include the minimum drills and exercises to be completed during the quarterly training. The UAS training records will be maintained by the UAS Program Coordinator or designee.

The Program Coordinator ensures that all authorized operators and required observers have completed all required FAA and DOJ-approved training in the operation, applicable laws, policies and procedures regarding use of the UAS.

DOJ UAS flight crews are also encouraged to train with other local and regional law enforcement agencies on a bi-annual basis, at minimum, with their supervisor's approval.

Assignment and Storage of UAS Equipment

UAS flight crews will only utilize and operate DOJ-owned and authorized UAS equipment. An agent assigned UAS equipment will be responsible for maintaining the equipment in operational condition. At no time shall an agent with assigned UAS equipment report for duty without the assigned UAS equipment.

The purchase of new UAS aircraft and equipment is the responsibility of the individual division and bureau. It is recommended that any division or bureau seeking to purchase additional UAS aircraft and equipment consult with the UAS committee to ensure the aircraft and equipment meet current state and federal statutes, as well as FAA regulations.

When transporting UAS equipment, the agent shall secure the UAS equipment inside the vehicle and out of view. When stored in a vehicle, the UAS equipment shall be adequately safeguarded from theft, secured by a lock and chain or in a locked equipment vault.

Maintenance

UAS maintenance includes scheduled and unscheduled repair, inspection, replacement of components, and system software upgrades to maintain the UAS for safe flight. UAS flight crew should adhere to the manufacturer's recommended schedule for maintenance. The maintenance performed on a UAS shall be recorded and tracked through the drone management and collaboration software platform, DroneSense, or another department-approved software platform used to manage successful public safety UAS programs.

The batteries are an essential component of the UAS and should be maintained with care. The batteries are inspected on a weekly basis and maintained according to the specifications from the manufacturer. Typically, manufacturers recommend that UAS batteries be cycled (drained and recharged) twice per month. The batteries should be charged and ready prior to an UAS operation. A battery known to be malfunctioning or defective shall not be used during a UAS operation.

FAA 14 CFR Part 107 Regulations

The FAA has established several regulations for 14 CFR Part 107 pilots, which are subject to change. UAS flight crews should always check for and review the most up-to-date FAA regulations². The following are the most relevant or applicable FAA regulations to the DOJ UAS Program as of January 2024:

Alcohol

No UAS flight crew member shall have consumed any alcoholic beverage within eight (8) hours prior to flight, be under the influence of alcohol, or have consumed such quantity of alcohol to

² https://www.faa.gov/uas

produce a blood alcohol level of 0.04% or greater while acting or attempting to act as a UAS flight crew member.

Drugs

No UAS flight crew member shall consume or use any drugs or other substances, prescription, herbal, or otherwise, that affects the person's faculties in any way contrary to safety, or be experiencing lasting effects of any drugs or substances while acting as a UAS flight crew member.

Collision Reporting

The RPIC is required to report a collision to the FAA within 10 days of the incident under the following conditions pursuant to 14 CFR Part 107 § 107.9:

- 1. Any person is seriously injured; or
- 2. Any person has experienced a loss of consciousness; or
- 3. Damage of at least \$500 to repair or replace has occurred to any property, other than the UAS. Repair costs less than \$500 (including materials and labor) or property, in the event of a total loss, with a fair market value at \$500 or less are not included.

Maximum Altitude

The FAA has the final authority on airspace and limits the maximum altitude for UAS aircraft at 400 feet above ground level (AGL) in unrestricted airspace. The FAA further restricts the maximum altitude allowed for UAS aircraft from 0-400 feet above ground level in controlled airspace. There are no law enforcement exceptions for these altitude limitations and DOJ UAS flight crews are not authorized to exceed any FAA altitude restrictions.

Besides maximum altitude restrictions, UAS flight crew members must always be aware of and follow local rules and restrictions for flight.

Remote Identification

UAS flight crew members operating a UAV, including a law enforcement UAV, are required to operate in accordance with FAA regulations. Effective September 16, 2023, flight crews operating a UAV must comply with the FAA Remote ID rule and the use of a beacon to broadcast standard remote identification and location information. The Remote ID rule requires the broadcast of standard remote identification of the UAS aircraft and control station.

UAS Registration

All UAS aircraft used for commercial purposes, including law enforcement UAS aircraft, must be registered with the FAA before being operated. The FAA registration number must be affixed to the UAS aircraft.

Possession of an FAA 14 CFR Part 107 License

The RPIC must have their valid FAA 14 CFR Part 107 license on their person during any flight operations.

Manual Distribution

A copy of this manual will be issued to every person assigned to the UAS Program and will be made accessible to all DOJ personnel.

Administration

The policies and procedures contained in this manual are issued by the authority of DOJ. As such, it is an official document of DOJ. This manual is not intended to be all-inclusive, but a supplement to other DOJ guidelines, FAA regulations, and the aircraft manufacturer's approved user manual.

This manual has been prepared to address DOJ's UAS operations. Equipment, personnel, environment (internal and external) change over time. The management of change involves a systematic approach to monitoring organizational change and is a critical part of the risk management process. Given this potential for change, it is essential that this manual be continually updated as necessary. The entire manual will be reviewed bi-annually, or as needed, by the UAS committee to address changes in statute as well as upgraded industry standards.