OCEANSIDE POLICE DEPARTMENT

UNMANNED AERIAL SYSTEM

OPERATIONS MANUAL

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1. Preface

The following procedures are intended to promote safe, efficient and lawful operation of the Oceanside Police Department's Unmanned Aerial System (UAS). Safety, above all else, is the primary concern in each and every operation, regardless of the nature of the mission.

2. Philosophy & Mission Statement

It shall be the mission of those personnel of the Oceanside Police Department who are trained in the use of UAS, to use this resource to protect the lives and property of citizens and first responders in a constitutionally and legally sound manner. Use of an aerial system can be utilized in circumstances which would save life and property, as well as being able to detect possible dangers that could not otherwise be seen.

UAS's can support any responder in any all-hazards incident that would benefit from an aerial perspective. Additionally, the UAS would have suitable uses in locating and apprehending subjects, missing persons, search and rescue operations as well as any task that can best be accomplished from the air in an efficient and effective manner.

It shall be the intent of every UAS operator to make reasonable effort to not invade a person's reasonable expectation of privacy when operating the UAS. When operating the UAS, the Oceanside Police Department will abide by all FAA Regulations for flight and receive the proper authorization for flight. Additionally, the need, availability and use of the UAS will not supersede the issuance of a warrant when otherwise required.

3. Protection of Rights and Privacy

UAS unit Commanders, operators and observers will consider the protection of citizens' civil rights and reasonable expectations of privacy as a key component of any decision made to deploy the UAS. UAS operators and observers will ensure and will be held accountable for ensuring that operations of the UAS intrude as little as possible upon the citizens of Oceanside. To accomplish this primary goal we will do the following:

1. When the UAS is being flown, the onboard cameras will be turned to face away from occupied structures, etc. to minimize inadvertent video or still images of uninvolved persons.
2. All video and still images will be maintained in strict compliance with OPD policies and procedures.
3. OPD's Facebook and/or Public Stuff applications will be made available for public input and will be maintained and regularly monitored to address citizen concerns and recommendations.
4. The OPD UAS unit will not conduct random surveillance activities. The use of the UAS will be tightly controlled and regulated.
5. The authorized missions for the OPD UAS are:
    a. Searches (i.e. for an outstanding suspect, article search, public safety hazard)
    b. Video/photographs for investigative support
    c. HAZMAT response
    d. Search and rescue
    e. Missing persons
    f. Barricaded persons
    g. Traffic collision investigations
    h. Over watch for officers and SWAT operations
    i. Disaster response
    j. Special events
6. All other requested uses require approval by the UAS supervisory staff prior to accepting the mission.
7. A committee consisting of the UAS members and supervisors will meet as needed, or as necessary for the purpose of reviewing the existing UAS procedures as well as new technologies, laws and regulations on UAS usage. The committee will present all proposed policy and procedures changes

to OPD's chain of command to have recommended changes staffed for approval. The OPD UAS program will operate, strictly within the law and regulations. If in doubt, prior to operating the UAS, operators will ensure that warrants are applied for and obtained. We will balance all operations with the need to accomplish the mission while maintaining to the maximum extent possible, citizens' privacy and the freedom from intrusion.

4. Definitions

1. *COA* (Certificate of Authorization) -Given by the FAA which grants permission to fly within specific boundaries and perimeters.
2. Federal Aviation Administration (FAA) - The national aviation authority of the United States, with powers to regulate all aspects of civil aviation.
3. Unmanned Aircraft System (UAS)- Aircraft including but not limited to, a flight system capable of operating without an internal pilot, tethered by a radio control link; and can be preprogrammed for both flight and payload operations prior to launch, and all of the supporting or attached systems designed for gathering information through imaging, recording, or any other means.
4. Remote Pilot in Command (RPIC) - The remote pilot in command is chiefly responsible for the safe operation of the UAS and the safety of the public during flight operations.
5. First Person View (FPV)- A live video feed broadcast by the UAS often utilized by tactical command elements, incident commanders or other authorized personnel to view the live video being received from the UAS.
6. Ground based observers (Observers) - Assist the remote pilot in command with ground safety and in flight will utilize the "see and avoid" technique by scanning the area for air traffic or other possible hazards.

5. Administration

a. Operations Manual

1. This manual is issued by authority of the Chief of Police. As such, it is an official document of the Oceanside Police Department.
2. This manual is not intended to be all-inclusive, but as a supplement to other department guidelines, Federal Aviation Administration regulations, aircraft manufacturers' approved flight manual, etc.
3. Manual has been written to address UAS operations as they existed when it was drafted. Equipment, personnel, environment (internal and external), etc., 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, it is essential that this manual be updated as necessary. The entire manual will be reviewed, at a minimum, annually to assure it is up to date. Any changes to the manual will be communicated as currently dictated by department policy.
4. A copy of the manual (electronic and/or paper) will be issued to every person having UAS responsibilities.

b. Organization

1. The UAS unit shall be comprised of those personnel approved by the Chief of Police and includes RPICs, observers, supervisors and others deemed necessary as part of the UAS unit.
2. The UAS unit will be comprised of officers who are on-duty during core business hours.
3. Assignment to the UAS unit is voluntary. If UAS RPICs are requested to respond for a UAS deployment outside of their regularly scheduled work shift, they will be compensated at the rate established in the members current Memorandum of Understanding (MOU) with the city.

c. Personnel

1. Unit Commander is responsible for the overall direction and performance of the UAS unit and will exercise command and control over it.

2. UAS Supervisor
    a. Responsibilities: 1) maintaining all training, flight and maintenance records for each operator and observer as well as individual airframes, 2) maintain contact with the FAA and review and update regulations as they change, 3) evaluate airframes based on mission needs.

3. Operators
    a. To be considered for selection as an operator, applicants are not required to already possess a 14 CFR Part 107 certification (remote pilots).
    b. Operators interacting with Air Traffic Control (ATC) shall have sufficient expertise to perform that task readily. Operators must have an understanding of, and comply with FAA and Military Regulations applicable to the airspace where the UAS will operate. Officers operating a UAS will be in compliance with the departments' policy regarding substance use/ abuse.
    c. An operator's primary duty is the safe and effective operation of OPD's UAS in accordance with the manufacturers' approved flight manual, FAA regulations and agency policy and procedures. Operators must remain knowledgeable of all FAA regulations; UAS manufacturer's flight manual and bulletins and OPD policy and procedures.
    d. The department Training Coordinator shall maintain a file for each operator which shall include copies of FAA certifications, training records, etc. This file will be reviewed in accordance with current OPD policy and procedures.
4. Observers
    a. To be considered for selection as an observer, applicants are not required to already possess a 14 CFR Part 107 certification (remote pilots).
    b. Observers must have been provided with sufficient training to communicate clearly to the operator any turning instructions required to stay clear of conflicting traffic. Observers will receive training on rules and responsibilities described in 14 CFR 91.111, Operating
        i. Near Other Aircraft, 14 CFR 91.13, Right-of-Way Rules, cloud clearance, in-flight visibility, and the pilot controller glossary including standard ATC phraseology and communication.
        ii. An observer's primary duty is to operate the UAS's equipment including cameras, FLIR, radio communications with patrol units as well as be an observer for anything that may affect the operator's primary duty (see and avoid).
        iii. The department UAS Coordinator shall maintain a file for each observer which shall include copies of FAA certifications, training records, etc. This file can be reviewed in accordance with current OPD policy and procedures.

d. Facilities

1. UAS operations will be housed and maintained at a facility designated by the Support Operations Division Commander.
2. Personnel will not secure/store UAS equipment without making sure the area is clean and all gear is properly secured.

e. Scheduling

1. To facilitate the broad use of the UAS, it shall be made available to all patrol and all investigations bureau personnel.
2. To maintain a level of proficiency with the UAS, operators will be required as part of their acceptance into the UAS unit, to attend training every month. Training will be coordinated through the UAS Unit and announced in advance for scheduling purposes.

f. Miscellaneous

1. Inquiries from the news media will be forwarded to the Public Information Officer. Operators/Observers shall follow currently established department policy regarding interactions and inquiries from the media.
2. Requests for support from other government agencies within, or outside the City of Oceanside will be responded to by the Watch Commander/Patrol Supervisor for consideration. For those requests involving an immediate threat to life, or property, the operator is authorized to accept or decline the request. Proper policy and procedure, as well as FAA regulations shall be followed when accepting mutual aid support for the UAS.
3. Complaints or inquiries regarding UAS operations shall be referred to the Watch Commander or Professional Standards Unit.

6. Safety

a. Safety Policy

1. The Oceanside Police Department is committed to having a safe and healthy workplace, including:
    a. The ongoing pursuit of an accident free workplace, including no harm to people, no damage to equipment, the environment and property.
    b. A culture of open reporting of all safety hazards in which management will support the reporting of a hazard or safety issue.
    c. Support for safety training and awareness programs.
    d. Conducting regular audits of safety policies, procedures and practices.
    e. Monitoring the UAS community to ensure best safety practices are incorporated into the organization.
2. It is the duty of every member within the UAS unit to contribute to the goal of continued safe operations. This contribution may come in many forms and includes always operating in the safest manner practicable and ***never taking unnecessary risks***. Any safety hazard, whether procedural, operational or maintenance related should be identified as soon as possible after, if not before, an incident occurs. Any suggestions in the interest of safety should be made to the UAS unit Chain of Command.
3. If any member observes, or has knowledge, of an unsafe or dangerous act committed by another member, the UAS supervisor or the Support Operations Division Commander is to be notified immediately so that corrective action may be taken.

b. Operational Hazard and Occurrence Report (OHOR) and Investigations

1. Occurrences are unplanned safety related events, including accidents and incidents that could impact safety. A hazard is something that has the potential to cause harm. The systematic identification and control of all major hazards is foundational to safety.
2. The OHOR concept provides a mechanism to report hazards and occurrences, real and perceived, to those responsible for UAS operations.
3. There is no specific format for the OHOR as the information provided is what is important, not the format and should be used without hesitation to report any anticipated, current, or experienced safety hazard, or occurrence. Further, the OHOR can be submitted anonymously, and to whatever level in the chain of command, to get the matter proper attention, without fear of reprisal.
4. Every hazard and/or occurrence will be investigated, with the results and corrective action taken communicated to all members. The investigation will be conducted under the direction of the unit commander, or any other member of the department who has the technical skill necessary to do so. The services of an independent subject matter expert may be necessary in some cases to assure a thorough and complete investigation.
5. Hazards requiring immediate attention will be brought to the attention of the UAS Supervisor, Unit Commander or the Support Operations Division Commander, verbally, without delay.

6. ALL MEMBERS ARE AUTHORIZED TO TAKE ACTION TO CORRECT A HAZARD if in that member's opinion delay will result in accident or injury. The UAS unit chain of command will be notified immediately in such situations.

c. Safety Officer - Operator/Observer/Supervisor

1. In regards to safety, all members of the UAS unit are responsible for the following:
    a. Ensuring all flight operations personnel understand applicable regulatory requirements, standards and organizational safety policies and procedures.
    b. Observe and control safety systems by monitoring all operations.
    c. Review standards and the practices of department personnel as they impact operational safety.
    d. Communicate all reported safety related problems and the corrective action taken. If there were any in-flight problems (or learned experiences), the proper procedures for handling that problem should be discussed.
    e. Copy and circulate pertinent safety information.
    f. Copy and circulate emergency safety bulletins.
    g. Place any electronic copies of safety information or bulletins in a designated Drop Box or identified folder on the police J: drive.
    h. It is emphasized again that safety is the responsibility of ALL members of the UAS unit.

d. Safety Training

1. All members shall receive training in the following subjects prior to operating the UAS:
    a. Agency commitment to safety
    b. Agency policy
    c. UAS member's role in safety
    d. Emergency safety procedures

e. Medical Factors

1. Operator and Observers shall only deploy the UAS when rested and emotionally prepared for the tasks at hand.
2. Physical illness, exhaustion, emotional problems, etc., can seriously impair judgment, memory and alertness, the safest rule is not to act as an operator or observer when suffering from any of the above. Members are expected to "stand down" when these problems could reasonably be expected to affect their ability to perform flight duties.
3. A self-assessment of physical condition shall be made by all members during pre-flight activities.
4. Performance can be seriously hampered by prescription and over the counter drugs. The UAS commander will be advised anytime such drugs are being taken. If it is determined that the medication being taken could hamper an operator or observer, that member shall be prohibited from the deployment or exercise.
5. Officers operating a UAS will be in compliance with the departments' policy regarding substance use/abuse.

7. Training

a. Objective

1. The key to continued safe operations is by maintaining a professional level of competency. The first step in this process is establishing minimum qualifications for selecting members, and the second step involves training those personnel.

b. Instructors

1. If any members are FAA certified flight instructors, they will be given instructor duties. Such duties can include developing training courses, providing training and student evaluation and documentation.
2. Duties of instructing new members shall fall upon those who have the most flight time and knowledge of UAS operations. Instructors will be designated by those within the unit and approved by the UAS Commander.

c. Training Plans

1. All members will have training plans completed and on file for the instructors assigned training period.
2. The approved training plan will be developed jointly by the supervisor, UAS members and the department's training unit.
3. All deployments or exercises will be documented and count toward a member's training.
4. It is the member's responsibility to verify their training file contains all pertinent information.

d. Initial Training

1. Upon acceptance to the UAS unit, the new member shall acquire a 14 CFR Part 107 certification.
2. Visual Observer shall maintain constant communication with the RPIC and the Incident Commander. An Observer may maintain contact with the RPIC by being in close proximity and utilizing clear communication, utilizing a police radio, or cell phone. To serve as a visual observer for UAS operations the officer must have completed UAS visual observer training.
3. In conjunction with fulfilling all FAA requirements for operator/observer duties, the new member will also become familiar with UAS operations, the aircraft and its equipment.
4. Any new member who fails to successfully complete the initial training may be removed from the UAS unit.

e. Recurrent Training

1. All members within the unit shall maintain proficiency in their operator/observer abilities.
2. Members who do not have any documented training or flight time within a span of 90 days will have to show proficiency before being an operator/observer during a deployment or exercise.
3. Recurrent training is not limited to actual operating/observer skills but includes knowledge of all pertinent UAS/aviation matters.
4. Repeated failure to demonstrate proficiency can result in removal from the UAS Unit.

f. Miscellaneous

1. Depending on the nature of the training request, all efforts will be made to accommodate the hours of training so as little impact is made to staffing levels.
2. All requests for training shall be approved through the member's chain of command and timekeeping during those training hours will be marked by the member's supervisor.
3. Members are encouraged to attend, and forward information on FAA sponsored safety seminars and may attend such training while on-duty, with the approval of their chain of command.
4. Training shall only be conducted at approved locations and follow the provisions of the approved FAA COA or Part 107 regulations.

8. General Operating Procedures

a. Requests for UAS

1. Requests for UAS support shall be made through OPD Dispatch, who will maintain the most current list of UAS operators and supervisors to contact.
2. Requests for UAS support can be made at any time during the day or night.

3. If a request is made for UAS support during non-core business hours, OPD Dispatch will contact a UAS supervisor with the phone numbers provided.

b. Call-out Procedure

1. The UAS supervisor will screen all initial requests to use a UAS for patrol or investigation units.
2. The UAS supervisor will screen the request using the following factors:
    a. Is the proposed use of UAS within the capabilities of the UAS equipment and personnel to perform?
    b. Does the proposed use of the UAS fall within the FAA and department policies and regulations for UAS usage?
    c. Can the UAS be deployed safely given current weather conditions?
    d. If the UAS deployment requires a warrant, has one been requested and approved?
    e. Are trained and qualified personnel available to safely operate the UAS?
3. The UAS supervisor will either accept or decline the request for UAS support. If the request is denied the UAS unit supervisor will provide a reason for declining the support request to the requestor. If the UAS supervisor accepts the support request they will contact a UAS operator who will be provided all available mission information.
4. The UAS operator will either contact a certified observer from the list of available trained observers or request through the dispatcher that a broadcast be made requesting a UAS observer meet the UAS RPIC at the scene. The UAS RPIC is responsible for transporting the UAS and all required equipment to the scene. Upon arriving at the requested location the UAS RPIC will contact the on scene Incident Commander, will check in and receive a briefing on the mission requested. The UAS RPIC will make an on scene determination of the ability of the UAS to perform the requested mission safely and within department and FAA policies and procedures.
5. If the UAS RPIC determines that the use of the UAS would violate FAA regulations then the UAS RPIC will respectfully inform the Incident Commander of the FAA violation. The UAS will not be flown in this circumstance because doing so would violate federal aviation law. The authority of the UAS RPIC to decline a mission based on this is absolute. The UAS operator will contact the UAS unit chain of command. The RPIC shall complete a memorandum of the circumstances, the identified reason for declining the mission and forward the memorandum to the UAS unit commander via the chain of command.
6. RPICs have absolute authority to reject a flight based on personnel safety or a violation of FAA regulations. The decision to accept a mission will be contingent upon several factors to include the ability of the UAS team to operate within a secure perimeter, physical features of the area, obstructions to flight, terrain, weather and the RPICs own abilities.

c. Deployment Priorities

1. The UAS shall not be used for the purpose of random surveillance.
2. If several separate requests for UAS support are received simultaneously, they shall be prioritized.
3. In general terms, requests for UAS support are prioritized as:
    i. Life / Safety
    ii. Evidence / Documentation

d. Flight Boundaries

1. Although there may be requests for UAS support outside the City of Oceanside, the certificate of authorization for our UAS restricts UAS deployment outside the City of Oceanside, unless operating under part 107 authority.
2. At no time shall UAS support be granted outside the City of Oceanside without first obtaining an emergency FAA COA (unless operating under part 107 authority) and **approval by the UAS Commander** or his/her designee.
3. Information regarding flight boundaries can be found in the FAA COA and the use of a San Diego VFR Terminal Area Chart.
4. Maximum altitude shall not be set more than 400' feet AGL per the FAA.

e. Minimum Personnel Requirements

1. Due to the nature of the law enforcement mission, the minimum personnel required on ALL missions will be an operator and observer. Under no circumstances will an operator attempt to complete a deployment alone.
2. Although training is not considered a mission, an observer shall be used.

f. Personnel Responsibilities for Deployments

OPEN COMMUNICATION ACHIEVES SAFE OPERATIONS

1. RPIC
    a. The RPIC is directly responsible for, and is the final authority over the actual operation of the UAS.
    b. RPICs have absolute authority to reject a flight based on a violation of FAA regulations. No member of the police department, regardless of rank, shall order an operator to make a flight when it is in violation of FAA regulations.
    c. RPICs are responsible for compliance with this manual, department policy and procedure and FAA regulations.
    d. The RPICs main duty during the deployment of the UAS is to operate the UAS safely while accomplishing the goals of the deployment.
    e. RPICs shall see-and-avoid any obstacle that will lessen safety during the mission.
    f. RPICs shall be responsive to the requests of the observer in order to accomplish the deployment.
    g. RPICs shall be responsible for documentation for mission training and updating of flight books.
2. Payload Operator
    a. Payload Operators are responsible for the law enforcement aspect of the deployment.
    b. Payload Operators shall operate any attachments to the UAS, allowing the operator to maintain complete focus on the operation of the UAS.
    c. Payload Operators shall remain alert for suspicious persons or activities on the ground and coordinate response by ground units.
    d. Payload Operators shall monitor radio updates.
    e. Payload Operators shall assist the RPIC in the main objective of safe operation of the UAS.
2. Observers
    a. Maintain visual observation over UAS at all times while in flight
    b. Scan the surrounding area for potential hazards
    c. Alert the RPIC to any other aircraft operating in the area
    d. Maintain verbal or radio contact with RPIC and Payload Operator
    e. Be alert to cloud clearance and inflight visibility

f. Personal Equipment

1. UAS operator/observer shall wear the approved uniform for deployment which easily identifies them as Oceanside Police Department Officers. If responding to a call out, officers are authorized to wear civilian clothes however, they will minimally have their pistol, badge, ballistic vest and be readily identifiable as police personnel.
2. Operators/Observers will take into consideration the current weather conditions when planning to deploy, and wear appropriate clothing to deploy comfortably.
3. There are no documented issues with the use of the radio or cellular phones during the deployment of the UAS, but the operator/observer should at all times take into consideration safe operation of the UAS when using the radio or another device. (Use of the radio or other device is strictly prohibited by the operator during flight per the COA.)

8. Pre-Flight/Post-Flight Actions

a. Inspections

1. RPICs are responsible for a thorough preflight inspection of the UAS.
2. Before and after each deployment (whether an incident or training), the operator and observer shall conduct a thorough inspection of the UAS in accordance with the instructions contained in the manufactures user's manual.
3. Any issues found that will put in jeopardy the safe operation of the UAS shall be documented and resolved immediately and prior to flight.
4. It has been recognized that the use of a checklist is a significant method to combat UAS accidents. A pre-flight and post-flight checklist is contained in the Base Station and will be utilized prior to each flight.
5. Any physical equipment that cannot be resolved on-site, and which have an impact on safety or the mission, will override the deployment. These issues will be resolved before flight.

b. Weather

1. Before each deployment the operator/observer will ensure that he/she gathers enough information to make themselves familiar with the weather situation existing throughout the area of deployment. The operator shall utilize FAA approved weather resources to obtain the latest and most current weather conditions.
2. The weather conditions reported for the operation shall be recorded in the flight log.
3. The RPIC shall ensure that the flight will occur within FAA VFR weather requirements.

c. Documentation and Evidence

1. Inspection and weather will be documented prior to flight within the flight log.
2. After each flight, the RPIC will complete a statement documenting the UAS operation.
3. After each deployment, all video associated with a criminal case number obtained by the UAS operation will be submitted to evidence in accordance with department policy.
4. Aerial photography (still or video) shall be stored in accordance with department policy.
5. Any video or photos not associated with a criminal case will be purged at the end of each flight or prior to the end of shift. Examples include training evolutions, flights that support patrol operations where no suspect is located, search and rescue missions where the victim is not located, etcetera.
6. The RIPC of the UAS is responsible for evidence handling as well as writing any supporting documentation for the incident.

d. Planning

1. The RPIC/Payload Operator/Observer shall familiarize themselves with all available information concerning the deployment including, but not limited to, the weather conditions, hazards, description of the incident, deployment goals, etc.
2. RPICs will ensure that the location for take-off and emergency landing is adequate for a safe deployment.
    a. The take-off/landing location should be clearly marked and identifiable with short cones.
    b. At least one emergency landing area should be identified per deployment.
3. RIPCs will ensure that they are aware of their surroundings in the event that an emergency landing is necessary. This includes the ability to recover the UAS.

e. Checklists

1. RIPCs shall utilize the standardized checklist(s) to ensure the highest level of safety for deployment.
2. Prior to flight, the flight log shall be initiated.

f. Maintenance

1. Although there are few parts on the UAS that need servicing, it is necessary that the manufacturer's maintenance schedule is followed and properly documented.
2. Any issues that arise during maintenance that cannot be resolved by routine methods shall be forwarded to the manufacturer for further technical support.

g. Other

1. RPICs/Observers will ensure that no items are attached to the UAS prior to flight that are not required for safe operation and to complete the mission goal.