SAN DIEGO POLICE DEPARTMENT
SPECIAL OPERATION BRANCH

UNMANNED AIRCRAFT SYSTEMS UNIT OPERATIONS MANUAL

CONFIDENTIAL

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INTRODUCTION

The mission of the San Diego Police Department Unmanned Aircraft System (UAS) Program is to provide remotely operated aerial support and expertise for the organization's patrol, investigative, and administrative needs.

The goal of the UAS Program is to enhance the safety of the community and police personnel through the strategic deployment of Unmanned Aircraft technologies. The UAS Unit strives to increase the safety of officers, as well as improve their effectiveness and efficiency through the timely use of remotely piloted aircraft.

The following procedures are provided to ensure a safe operating environment for personnel assigned to the UAS Unit, department personnel in the area of UAS operations, and the citizens of San Diego. Safety will always be the primary concern for UAS operations.

It shall be the mission of the San Diego Police Department personnel who are trained in the use of the UAS, to use this resource to protect the lives and/or property of the citizens of San Diego and first responders in a constitutionally and legally sound manner and in compliance with Federal Aviation Administration (FAA) regulations.

The UAS can support first responders in any and all hazardous incidents which would benefit from an aerial perspective. These uses would include Search and Rescue missions, Barricaded Suspects and other High-Risk Tactical Operations, Disaster Response, Video/Photography of crime scenes, Training Missions and Life Saving/Threatening situations.

Both public and private pilots of unmanned aircraft systems have a responsibility to not infringe on the rights or property of the citizens of California. Any data, information, photographs, video recordings of individuals, both public and private, should be minimized and retained in a manner consistent with current privacy standards.

The UAS Unit's Operations Manual exists to set forth rules, guidelines and expectations for the safe operation of department unmanned aircraft. Neither this document, nor even a collection of documents, can outline every conceivable event that may befall a remote aircraft operator. The intent of this manual is to provide guidance for compliance with specific requirements and generally accepted aviation procedures.

This manual is supplemented by Federal, State, local regulations, and by San Diego Police Department Orders, Announcements, Policies, and Procedures. Together these, along with written and verbal communications, constitute the nucleus for the safe conduct of UAS Unit flight operations.

SECTION ONE

PURPOSE AND AUTHORITY

1.1 PURPOSE

This publication presents a consolidation of information, procedures, rules and guidelines for the operation of the San Diego Police Department UAS Unit. It compliments existing Department Procedures and Policies, Manufacturer's Flight Manuals, Federal Aviation Administration regulations, and other pertinent information relating to remotely operated aircraft flight operations. The publication will also address the storage, retrieval and dissemination of evidentiary videos, digital images and data captured during Unmanned Aircraft System operational missions.

While it provides the best possible operating instructions under most conditions, this Operations Manual is not a substitute for sound judgment.

This Operations Manual has the same authority as a Department Order and is the definitive authority for the San Diego Police Department UAS Unit. This Operations Manual will not apply in such a way as to violate state or federal laws, other Department Policies or Procedures, or abridge the constitutional rights of members of this department. If, for any reason, any portion of this manual is held to be invalid, the remainder of the manual shall not be affected.

1.2 DISTRIBUTION

The latest version of this manual will be available in the Department Resource Library. The Unit Captain, Lieutenant, Sergeant, and all Officers will receive email notification of all revisions.

1.3 REVISIONS

Revisions of this Operations Manual will be as changes in regulations, policies, or procedures occur. This Operations Manual will be reviewed by the UAS Unit Commanding Officer each July for possible revision. Associated Department Procedure 8.23 - Use of Small Unmanned Aircraft System, should be reviewed if changes are made to the Operations Manual.

SECTION TWO

GENERAL FUNCTIONS

2.1 UNIT FUNCTION

Generally, UAS will be used in direct support of patrol and investigative operations. The UAS Unit is responsible for, but not limited to:

A. Providing remotely operated air support to patrol operations.

B. Providing the following remotely operated air support functions to units of the Department for the accomplishment of their missions:

1. Search and Rescue support for lost, missing at risk, or stranded persons and/or suspects.

2. Provide aerial observation and imagery for safety and situational awareness in support of fire response, and disaster response.

3. Provide photo and video digital media recording in support of crime scene evidence collection.

4. Provide aerial and remote camera observation and imagery during incidents involving barricaded suspects, hostage incidents, and high-risk tactical operations.

5. Provide aerial imagery and photo/video support for department training.

6. Providing aerial observation and imagery support for investigative units when valid search warrants have been issued authorizing UAS operations.

7. Any other missions deemed necessary by the Chief of Police.

C. Providing assistance to incident commanders during critical incidents, unusual occurrences, and special events.

1. Provide real time radio wave based downlink aerial video imagery for incident commanders at established critical incidents and special events.

D. Providing non-operational, non-evidentiary video recording for requesting SDPD Units for the purpose of internal department training and media relations. All photographic and video recordings acquired for training and media relations must adhere to the following guidelines:

1. Video and photographs must only be captured on city property or locations that are open and accessible to the general public.

2. The operator must refrain from collecting any video and photographs that would capture any person's Personal Identifiable Information (PII).

3. The operator must refrain from collecting any video and photographs that would capture any private citizen's recognizable facial features or visual identity.

4. All video and photographs used for SDPD training or Media relations must be reviewed prior to its use to ensure the above conditions apply.

5. The use of video editing software may be used to crop or blur out private information to ensure compliance to these guidelines.

SECTION THREE

UNIT ORGANIZATION

3.1 ASSIGNMENT

Full time personnel assigned to the UAS Unit will be aligned under the Operational Support Division.

A. Operationally, the Unit is budgeted for 1 full time Police Sergeant and 3 full time Police Officer.

B. Additional UAS remote pilots and visual observers are integrated into the UAS Unit as a collateral duty on an as needed basis.

3.2 CAPTAIN

The Special Operations Division Commander is the Commanding Officer of the UAS Unit.

3.3 UAS UNIT LIEUTENANT

The Lieutenant in charge of the Air Support Unit is the UAS Lieutenant. Given the technical nature of aviation, the UAS Lieutenant may, at their discretion, assign responsibility for UAS operations to any member of the UAS Unit with knowledge, skill, and abilities to safely and effectively manage the operation.

The UAS Lieutenant:

A. Oversees the overall direction and coordination of the UAS program.

B. Supervises and provides direction to the UAS Unit Sergeant.

C. Ensures the Policies and Procedures conform to current laws, regulations and best practices.

3.4 UAS UNIT SERGEANT

The UAS Sergeant is responsible for the overall management of the program and the day-to-day operation of the Unit.

Those duties include the following:

A. Manage all UAS aircraft, vehicles, support equipment, and maintenance equipment.

B. Supervise all UAS personnel about UAS operations and training.

C. Oversee the implementation of the UAS training program. The Operational Support Commanding Officer or designee is the final authority regarding Unit training requirements and flight standards.

D. Prepare the annual operating budget and facilitate equipment procurement for the UAS Program.

E. Develop the personnel selection process for replacement and appointment of new Remote Pilots in Command, co-laterally trained UAS pilots and Visual Observers.

F. Develop uniform protocol for submission, evaluation, and tracking of requests to deploy a UAS, including urgent requests made during ongoing or emerging incidents.

G. Develop operational protocol governing the deployment and operation of a UAS including, but not limited to, safety oversight, use of visual observer(s), establishment of lost link procedures, and secure communication with air traffic control facilities.

H. Ensure UAS personnel comply with: Department rules and regulations, and Federal Aviation Administration regulations.

I. Ensure all missions are properly documented. Review pre-flight checklists and Arjis-9 reports.

J. Review all UAS videos and photos recorded by the Unit.

K. Ensures that all data intended to be used as evidence are accessed, maintained, stored, and retrieved in a manner that ensures its integrity as evidence, including strict adherence to chain of custody requirements.

L. Ensure retention and purge periods are maintained in accordance with established records retention schedules.

M. Prepare and conduct debriefing training sessions with an emphasis on safety concerns. Discuss and document all reported safety related problems and corrective actions taken.

N. Supervise and coordinate the schedule for operations, training, and maintenance.

O. When necessary to complete an operational mission, assume the role of Remote Pilot in Command (RPIC), or Visual Observer (VO) as needed.

P. Ensure the Federal Aviation Administration Certificates of Authorization (COA) and Certificates of Waiver (COW) are current and adhered to.

Q. Appoint a UAS Sergeant designee in Command to perform supervisory duties in the absence of the UAS Sergeant. Generally, this responsibility will be assigned to the UAS Logistics and Training Officer (LTO).

3.5 UAS LOGISTICS AND TRAINING OFFICER – (LTO): Full-Time UAS Unit Position

A. Performs UAS Unit Sergeant's duties in the absence of the UAS Sergeant.

B. Assists the UAS Sergeant with any tasks and responsibilities delegated to him or her within the scope of the UAS program and their performance plan.

C. Possess a current Title 14 of the Code of Federal Regulations Part 107 remote aircraft pilot certification.

D. Manage, track, document, and maintain all UAS aircraft, vehicles, support equipment, and maintenance equipment.

E. Manage, track, and document all UAS personnel with regard to UAS operations and training.

F. Coordinate all UAS training sessions for personnel as required.

1. Lead the development, review, updating, and instruction on all UAS training courses.

2. Maintain appropriate training/qualification records in compliance with Title 14 of the Code of Federal Regulations Part 107 and department standards. Track and document flight hours of all UAS Unit Pilots.

3. Evaluate qualification status of each crewmember. Measure Pilot/Observer performance compliance with organizational goals, objectives, and regulatory requirements. Verify all performance standards are met.

4. Develop and conduct monthly UAS training and quarterly competency skills test evaluations.

G. Develop the UAS inspection, maintenance, and record keeping protocol to ensure continuing airworthiness, up to and including its overhaul or life limits.

H. Review standards and the practices of agency personnel as they impact flight safety. Continual review of FAA Safety requirements.

I. Manage the schedule for operations, training, and maintenance.

J. When necessary to complete an operational mission, assume the role of RPIC,

VO, Crew Resource Manager (CRM), or UAS Supervisor.

3.6 UAS REMOTE PILOT IN COMMAND (RPIC): Operational Role

A. The primary duty of the RPIC is the safe and effective operation of department UAS in accordance with department rules and regulations, Federal Aviation Regulations, UAS Operations Manual, Unit procedures, or public law, when applicable.

B. Only UAS pilots who have been approved by the UAS Sergeant may be assigned as a RPIC during an operational mission. The UAS Sergeant may suspend the flight status of any SDPD RPIC at any time if necessary.

C. The RPIC is directly responsible for and is the final authority over the operation of the UAS.

D. RPICs have the absolute authority to reject a flight due to weather, aircraft limitations, physical conditions, etc. regardless of the rank of any person on scene.

E. RPICs are responsible for compliance with FAA regulations, the SDPD UAS Operations Manual, SDPD Department Procedures, and FAA COA/COW conditions.

F. RPICs are responsible for conducting the pre-flight aircraft inspection and completing the SDPD UAS Pre-Flight Checklist prior to every aircraft launch.

G. RPICs are responsible for all evidence collection involved in the UAS mission.

H. RPICs are responsible for all documentation of the mission, including but not limited to, pre-flight checklist, flight log tracking, mission notes, malfunctions or collision reports, and an ARJIS-9 documenting the mission details, evidence collected, and impound procedures executed. These tasks may be delegated to another UAS crewmember with approval from the UAS Sergeant.

I. Post operation, RPICs are responsible for repacking the UAS, all support equipment, and vehicles. They are responsible for recharging depleted batteries, controllers, displays, transceivers, and flight support tablets. They are also responsible for reporting any maintenance related concerns to the UAS Sergeant. These tasks may be delegated to another UAS crewmember with approval from the UAS Sergeant.

J. On any given mission, a UAS RPIC may be called upon to perform the duties of either a UAS RPIC, VO, or CRM. All UAS RPICs must maintain proficiency in the operational standards of all positions.

K. In order to fly an operational mission, UAS Pilots must have successfully

completed the SDPD UAS Operators Competency Skills test within the previous 90 days and be trained to operate the UAS being used for the selected operation.

3.7 VISUAL OBSERVER (VO): Operational Role

A. The Visual Observer's primary function is to assist the RPIC with maintaining visual awareness of the airspace and advise of any imminent hazards to include other aircraft, terrain, and adverse weather conditions.

B. The VO will assist the RPIC with any other tasks as needed.

C. When appropriate, multiple VOs will be utilized during training and operational missions to assist in maintaining safe operations and to identify hazards and risks to SDPD Personnel, the public, and property.

3.8 CREW RESOURCE MANAGER (CRM): Operational Role

A. During training or operations, SDPD personnel may be assigned to be UAS Crew Resource Managers (CRM).

B. The CRM's primary function is to support the UAS operation by managing the UAS support resources and equipment.

C. Duties for the CRM include but are not limited to the following:

1. Acquire shore power or generator power for the UAS Response Team.

2. Set up the UAS Command Post, launch/land zone, and area lighting as needed.

3. Monitor and facilitate the UAS battery recharging and equipment maintenance tasks.

4. Set up the live feed downlink and display monitors.

3.9 SENSOR OPERATOR (SO): Operational Role

A. During training or operations, UAS operators may be assigned to be the Sensor Operator for either a UAS in flight or a UAS that is "perched" on the ground or on a structure.

B. The Sensor Operator's primary function is to control the camera and gimbal functions of the UAS but not control the flight of the UAS.

C. The Sensor Operator may communicate through the RPIC or may communicate directly with dispatch, patrol, and the command post.

D. Sensor Operators are responsible for all evidence collection involved in the UAS mission for the UAS they are operating.

E. Sensor Operators are responsible for all documentation of the mission for the UAS they are operating. This documentation and tasks, includes but is not limited to, pre-flight checklist, flight log tracking, mission notes, malfunctions or collision reports, and an ARJIS-9 documenting the mission details, evidence collected, and impound procedures executed. These tasks may be delegated to another UAS crewmember with approval from the UAS Sergeant.

3.10 UAS ASSISTANT TRAINING OFFICERS: LTO or Co-lateral Duty Assignment

A. Current UAS RPICs may be assigned to teach SDPD in-house training courses. Assignment and approval to instruct each training course will only be approved by the UAS Sergeant or UAS LTO if the UAS Sergeant is unavailable.

3.11 UAS SAFETY OFFICER POSITION: Additional LTO Duty Assignment

A. Maintain a viable aviation and industrial safety program for the UAS Unit that covers all UAS operations, training, and the use of all support equipment.

B. Assist the UAS Sergeant in the formation and implementation of safe operating procedures.

C. Will update the Pre-Flight Safety Briefing Training as needed.

D. Disseminate to all UAS personnel, current safety information from the FAA, aviation industry, aviation schools, and aviation seminars.

E. Will manage the UAS Unit's hazard reporting program.

F. Disseminate any safety/collision reports involving other law enforcement UAS aircraft to Unit members.

G. Evaluate needed safety equipment. Solicit input from other UAS Unit operators and submit purchase recommendations to the UAS Sergeant.

H. As necessary, maintain liaison with the FAA, National Transportation Safety Board, and the California Division of Aeronautics.

I. The Designated Safety Officer has the authority of the Unit Sergeant as it relates to the safe conduct of a training event including the operation of Department aircraft or the involvement of Department air crew personnel.

J. **The Designated Safety Officer has the authority to suspend or cancel Department UAS flight training and UAS operational missions in the interest of safety.**

SECTION FOUR

UAS OPERATIONS

4.1 UAS REMOTE PILOT CONDUCT AND CURRENCY

A. All UAS Unit personnel will conduct themselves in a professional and safety conscious manner. Safety is the first consideration in all operations.

B. Operations will be conducted in accordance with existing Department Policies and Procedures, Federal Aviation Regulations; the UAS manufacturer's operating manual, procedures outlined in this manual, and public law when applicable.

C. The currency for all UAS operations will be achieved through completion of:

1. Valid and up to date FAA CFR Part 107 Remote Aircraft Pilot Certification.

2. Successful completion of the UAS training academy regimen and active participation in monthly UAS training.

3. Successful completion of four hours of department approved and logged UAS training flight time acquired from the UAS training academy.

4. Evaluation and current approval of RPIC status by the UAS Sergeant.

5. Currency of the UAS Operator competency skills test using SDPD UAS equipment and evaluated by the UAS Sergeant or an approved evaluator designee. Currency is valid for 90 days.

6. In order to be certified to operate a specific UAS Airframe/Model, the RPIC must successfully complete several tasks related to each specific UAS Model. The RPIC must complete the specific UAS training regime, the flight hours requirement, and be able to demonstrate UAS flight and payload proficiency for the specific UAS Airframe/Model.

7. The UAS Sergeant is the final authority for approving which RPICs are certified and are authorized to each make and model of UAS based on training accomplished, current skill level, experience, and mission difficulty.

4.2 UAS REMOTE PILOT'S LICENSE

It is each remote pilot's responsibility to maintain their current Remote Pilot's license in accordance with Federal Aviation Regulations, and any required pilot currency per Unit Standards. The UAS Sergeant/LTO will maintain pilot certification and training records and conduct a pilot currency inspection every three months to address upcoming expirations and plan for renewal procedures. Copies of every pilot's FAA Part 107 certification will be retained in the UAS response kits' documentation binder and with the UAS Unit Operators training and certifications master file.

4.3 AIRSPACE AUTHORIZATIONS AND WAIVERS

A. The majority of the airspace above the city of San Diego is FAA controlled Airspace. The UAS Unit will make every effort to acquire FAA approved authorization in any controlled airspace prior to conducting an operation.

B. In critical life-threatening emergencies, the UAS Unit may conduct safe operations prior to acquiring FAA approved authorization. However, a member of the UAS crew must seek approval as soon as possible and must report the operation and circumstances requiring exigent deployment.

C. The UAS Unit Sergeant or designee is responsible for requesting, updating, and managing all FAA Certificates of Authorization (COAs) and Certificates of Waiver (COWs) for the SDPD UAS Unit to conduct UAS operations safety, effectively and efficiently.

D. The LTO is responsible for training UAS personnel on the department approved and FAA approved procedures for acquiring airspace authorization.

E. The SDPD currently uses the following processes to acquire FAA approved COAs and COWs:

   a. FAA COA Application Processing System (CAPS)
   b. FAA Drone Zone Process
   c. FAA Special Government Interest (SGI) Emergency COA Process
   d. Low Altitude Authorization and Notification Capability (LAANC)
      i. Via Aloft App
      ii. Via Airmap App

4.4 CREW MEMBER PHYSICAL CONDITION

A. Each UAS member shall report for duty rested and emotionally prepared for the task at hand.

B. All crewmembers on "Light Duty" status will comply with Department Procedure 5.02 Light Duty.

C. Physical illness, exhaustion, emotional problems, etc., can seriously impair judgment, memory and alertness. The safest rule is not to act as a flight crewmember when suffering from any of the above.

D. Crewmembers are expected to ground themselves when these problems could reasonably be expected to affect their ability to perform flight operations.

E. A self-assessment of physical condition shall be made by all UAS members prior to and during flight operations.

F. No UAS member shall participate in flight operations in any manner within eight (8) hours of having consumed any alcoholic beverage or while under the influence of alcohol, or while having an alcohol concentration of 0.02 or greater in a blood or breath specimen.

4.5 REQUESTS FOR UAS SUPPORT

A. Requests for UAS support for both planned and unplanned events shall be forwarded to the UAS Sergeant or designated LTO for consideration and execution.

B. Unplanned emergency requests for UAS support will be made by any incident commander regardless of rank.

C. Approval from the UAS Sergeant or designated LTO is required prior to all UAS operational deployments.

D. Notification will be made to the UAS Lieutenant prior to any UAS operational missions.

4.6 DEPLOYMENT OF UAS EQUIPMENT AND STAFF

A. The UAS Sergeant or designated LTO must make every effort to be physically present at the scene of all operational deployments and exterior training events as the mission UAS Supervisor to provide mission oversight and facilitate FAA required Airspace approval. The UAS Sergeant may designated this UAS Supervisor role to any RPIC on a case-by-case basis.

B. The UAS Sergeant will maintain a contact list of UAS personnel. The decision to call out UAS RPICs and VOs will be made by the UAS Sergeant or designee for unplanned exigent events.

C. If on duty and available, full time UAS team members may respond to any incident with a potential UAS support need but will not conduct any UAS flight operations until requested by the incident commander. The pre-emptive deployment of the UAS team is to these incidents is to minimize response time.

D. For Emergency SWAT incidents, the UAS Sergeant is, or designee is authorized to order the UAS on-call team to respond out to all major disasters, terrorist attacks, SWAT Code-11 and Code-12 call-outs but will not conduct UAS operations until requested by the SWAT command element or incident commander. The immediate deployment of the UAS Sergeant to these incidents is primarily to provide UAS supervisory oversight and airspace authorization planning if the SWAT team may need to use SWAT assigned UAS resources expeditiously and to minimize response time.

E. The minimum crew on all exterior UAS law enforcement and training flights will be an RPIC and a VO.

F. Interior training UAS flights do not require a Visual Observer.

G. Interior training UAS flights do not require a UAS supervisor to be present.

H. Interior training UAS flights do not need to be tracked or reported to the FAA as the flight will not be conducted in the National Airspace System.

4.7 MISSION PRIORITIES

A. The primary purpose of the Unmanned Aircraft Systems Unit is to provide aerial support to field officers and investigators, with officer safety being the priority. Officer safety considerations, tactical direction for officers, interior searches, and increased officer effectiveness through aerial observation are most important. In the event of simultaneous requests, the UAS crew will determine which call to respond to based on the following:

1. Protection of life/public safety

2. Protection of property

3. Patrol priority

4. Weather conditions

5. Crime scene preservation/evidence documentation

4.8 CALLOUT PROCEDURES

A. The UAS Sergeant will assign, manage, and track On-call duty rotation

assignments among the UAS team based on availability and operational needs. In general, full time UAS members will be the primary assigned on-call staff and co-lateral trained RPICs and VOs will be assigned as needed to.

B. The on-call UAS Sergeant or designee's contact information will be provided to the Watch Commander and updated as needed.

C. On call UAS RPICs will monitor their cell phones. On call personnel are eligible to take their City vehicle home per DP 1.16 Off Duty Use of Department Take Home Vehicles.

D. While on call, team members are expected to respond to all requests for service in a timely manner and with all necessary equipment. Requests for service include emergency callouts, requests for patrol and investigative assistance, and high-risk warrants. Failure to respond could result in removal from the UAS Unit.

D. If the UAS member will be unavailable for their call-out slot, they will be responsible for finding a replacement. When a replacement is identified, the UAS Sergeant will be notified of the change by the unavailable member.

E. During normal business hours ((**Deleted – records of security)**), on duty personnel will be called upon to respond to callouts. Off duty personnel call-outs Monday through Friday will generally be from **(Deleted – records of security)** hours. Weekend callouts will be from **(Deleted – records of security)** hours on Friday until **(Deleted – records of security)** hours on Monday.

4.9 JURISDICTIONAL

A. Requests for support from other agencies within, or outside of the City of San Diego shall be forwarded to the UAS Sergeant for consideration.

B. The UAS Sergeant, UAS Lieutenant, and Field Lieutenant should be notified of any out-of-city or out-of-county mutual aid calls.

C. The UAS Sergeant or designee must approve any operations or training outside of the city of San Diego.

4.10 UAS RESPONSE VEHICLES AND AIRCRAFT ASSIGNMENTS

A. The UAS Unit aircraft and equipment is organized in a way to provide rapid deployment and efficiency of operations. The UAS Unit currently has multiple assigned department vehicles. Only department approved UAS Unit members with approval from the UAS Sergeant may deploy the UAS Vehicles, aircraft and support equipment.

1. UAS Rapid Response Vehicles

a. UAS Rapid Response Vehicles will be used by the UAS Unit Sergeant and UAS LTO for daily duty tasks and will be used as the **(Deleted – records of security)**. When not assigned as a take home vehicle, they will be stored at **(Deleted – records of security)**.

b. When the UAS Rapid Response Vehicles are carrying UAS, Lithium Polymer (LiPo) batteries or other sensitive equipment, consideration shall be taken to protect the security and temperature of the vehicle to ensure safety.

c. The UAS Rapid Response Vehicles will be deployed as needed to respond to UAS incidents and carry various UAS and support equipment intended for rapid deployment and execution of limited UAS operations that may last up to approximately 6 hours.

2. UAS Response Team (URT) Vehicle

a. The URT is a larger UAS support vehicle intended to provide support to UAS Operations for events that last more than several hours or require equipment with additional UAS capabilities or support equipment.

b. The URT is outfitted with various downlink equipment and display monitors to act as a mobile UAS Incident Command Post for events that do not require a large standard mobile Command vehicle. The URT is not classified as a standard mobile Command Vehicle.

c. The URT Vehicle will be stored at **(Deleted – records of security)**, in an enclosed structure for security and temperature control. The URT may be left on location as a UAS Command Post for several days during multi-day operations as long as security and temperature needs are addressed.

d. The URT will primarily be deployed to respond to any incidents as directed by the UAS Sergeant.

3. UAS Major Event Response Vehicle (U-MERV)

e. The U-MERV is a larger UAS support vehicle intended to deploy Tethered UAS and support equipment to create a deployed T-UAS Command Post during planned and unplanned major events.

f. The U-MERV is outfitted with Tethered UAS, various smaller standard UAS, downlink equipment and display monitors to act as a mobile UAS Incident Command Post for events that endure more than 12 hours and is capable of providing support for several days.

g. The U-MERV Vehicle will be stored at **(Deleted – records of security)**, in an enclosed structure for security and temperature control. The U-MERV may be left on location as a UAS Command Post for several days during multi-day operations if security and temperature needs are addressed. The U-MERV may be additionally used as a take-home response vehicle with UAS Sergeant approval.

h. The U-MERV will be deployed for all planned special events, terrorist attacks, and natural disasters.

4. SWAT Special Response Team (SRT) UAS Equipment

a. Certain UAS and support equipment is assigned to SWAT SRT. This equipment will be primarily stored and deployed with existing SRT assets in an enclosed structure for security and temperature control. The SRT/UAS RPIC co-lateral duty officers are responsible for the storage and maintenance of the SRT assigned UAS equipment.

b. The SRT assigned UAS equipment may be deployed out to SWAT SRT incidents at the discretion of the SRT/UAS co-lateral duty officers, but can only be operated to support a mission with approval from the UAS Sergeant or designee after airspace authorization is acquired and the overall UAS mission has been evaluated.

c. The SRT/UAS equipment may be used for SRT training at the discretion of the SRT/UAS RPIC co-lateral duty officers absent of a UAS Sergeant presence but only in an enclosed controlled building. Exterior training with the UAS equipment assigned to SRT requires approval of the UAS Sergeant and presence of the UAS Sergeant or designated UAS RPIC to conduct airspace evaluation, acquire FAA airspace authorization, FAA flight tracking, and overall UAS training mission approval.

5. UAS Training Equipment

a. UAS aircraft designated as "Training Equipment" shall be stored at the **(Deleted – records of security)**.

b. The UAS aircraft designated as "Training equipment" may be adjusted when needed. Equipment assignment will be organized and tracked by the UAS LTO and UAS Unit Sergeant.

B. Take Home Vehicles

1. Use of all department vehicles will occur in accordance with Department Policy 1.16, which set response and incidental use guidelines for take home vehicles, and any published unit specific guidelines for each position.

2. The on-call UAS Supervisor and on call UAS RPICs are authorized to take home their assigned city vehicle and shall generally respond to and be on-scene within one (1) hour of receiving a call-back notification.

4.11 DEPARTMENT UAS EQUIPMENT

A. Department UAS and support equipment are not to be used to conduct personal business.

B. The use of any personal or private UAS device for any SDPD law enforcement operational purpose is not authorized.

4.12 UAS PRE-FLIGHT PROCEDURES / INSPECTIONS

Prior to all flights, the RPIC is responsible for ensuring the following tasks are completed:

A. Verify the aircraft is in airworthy condition and the mission scope is valid and can be conducted safely.

B. Conduct a separate pre-flight inspection in accordance with the SDPD Pre-flight Checklist for every aircraft used in the operation.

C. Verify all pre-flight tasks noted on the SDPD Pre-flight checklist have been completed to include airspace authorization, NOTAM submission, UAS supervisor approval, operational area assessment, weather assessment, and safety briefing.

D. In exigent circumstances requiring immediate UAS operations for the preservation of human life, UAS operations may be initiated prior to Airspace

authorization and/or DROTAM submission as long as the following conditions apply:

1. A Visual Observer is present and monitoring the airspace.

2. A UAS Crew member is actively monitoring the airspace with an aircraft transceiver set to CTAF or the governing Air Traffic Control Tower.

3. The governing Air Traffic Control Tower or FAA is notified as soon as possible of the operation by a Crew Member.

4.13 LAUNCH PROCEDURES

A. RPICs will follow the launch procedures in accordance with the SDPD Pre-flight checklist for every aircraft used in the operation.

B. When appropriate the RPIC or UAS Sergeant will notify dispatch that the UAS is launching using call sign ARO (pronounced Arrow and number) and note the time.

1. Example: ***"Arrow ONE to dispatch, Arrow One is Launching UAS.***

4.14 OPERATIONAL PROCEDURES

A. All SDPD UASs will be operated in accordance with department policies and procedures, current laws, this Operations Manual, SDPD FAA COAs/COWs, and FAA regulations.

B. The maximum altitude for operations is specified in the airspace authorizations for each mission, or 400 feet Above Ground Level (AGL) for Class G airspace.

C. The minimum altitude is one at which operations can be conducted without undue risk to persons or property on the ground.

D. The RPIC and VO must be constantly aware of dangers and airspace hazards that pose a risk for a UAS collision.

E. The RPIC and VO must be constantly aware of dangers to ground personnel from active propellers, the ground space the aircraft is currently flying over, and the aircraft itself at low altitudes or when descending.

F. When monitoring dynamic incidents, although a cover situation may appear to be "Code-4" to the UAS crew, only ground units will advise "Code-4" on the radio.

G. The RPIC and VO should constantly monitor and be aware of the designated Homepoint, RTH (Return to Homepoint) corridor, and distance between the UA and the Homepoint. [*Note: On some aircraft, if the distance between the Homepoint and the UA is less than 20 meters (65.617 feet) the aircraft will not execute RTH actions, it will instead Autoland (AL) straight down from its present location.]

4.15 EVIDENCE COLLECTION

A. When possible, UAS crewmembers will work with the incident commander to coordinate photo and video evidence collection.

B. When collecting evidence, UAS RPICs should make every effort to protect the privacy of citizen's and their property to the best of their ability.

C. During an operational mission, video recording should be activated on incidents that are of possible evidentiary value in criminal cases.

D. Operators should make every effort to activate video recording prior to the aircraft's arrival to the target location, but also refrain from recording un-necessary private property to the best of their ability.

E. Special events in a public venue may be recorded to document a crime in progress, anticipation of a crime, upon request, or with approval of the Chief of Police or designee.

F. Operators may record any incident that will enhance the operation of the Police Department or contribute to future department training and/or media relations as long as the operation is in compliance with existing privacy and 4th amendment laws and policies.

G. When practical, the RPIC or UAS Sergeant may advise via the radio that the incident is being video recorded to mark the time to assist with documentation at the end of the operation.

4.16 OPERATIONAL UAS FLIGHT COMMUNICATIONS

A. The UAS Sergeant or designee will carry an air traffic radio transceiver on their person during all UAS operations. The UAS Sergeant will monitor communications of either the local ATC (Air Traffic Control), frequency they are operating in or the local Air-to-Air frequency (A2A) 122.75, depending on which is more operationally appropriate. The UAS Sergeant may delegate this task to a VO that is trained and proficient in aviation radio communication.

B. The UAS Sergeant shall handle communications with Air Traffic Control and other aircraft. When under the control of ATC the UAS Sergeant will advise dispatch to standby with further communication until ATC communication has

ceased.

C. The RPIC will monitor law enforcement radio communications and ATC traffic but will not broadcast on the FAA transciever unless there is an emergency or the UAS Sergeant and VO is unable to communicate.

D. Dispatch, patrol officers, incident commanders, and investigators will all communicate to the UAS team via the UAS Sergeant or designee. The RPIC should limit communication to prevent distraction from operating the UAS safely.

4.17 LOST LINK - PROCEDURES

A. Most aircraft have an automated Return-To-Home (RTH), Auto Land (AL) or Hover in Place (HP) feature that will activate in the event of a loss of signal link to the aircraft.

B. All UAS RPICs will be trained on in-flight UAS emergency actions to include Lost-Link procedures.

4.18 UAS POST-FLIGHT PROCEDURE

After all flights, the RPIC is responsible for ensuring the following tasks are completed:

A. The UAS is inspected for any damage or maintenance needs. Any flight restricting condition to the aircraft must be reported to the UAS sergeant as soon as practical. If a specific UAS is determined to not be airworthy, the UAS Sergeant will be notified immediately so they may effectively manage UAS resources, prepare a maintenance plan of action, and remove the UAS from its assigned Response Kit.

B. All equipment, batteries, aircraft, and vehicles are charged, fueled, re-packed and secured in their proper locations to ensure the entire system is ready for the next mission.

C. The RPIC will document the UAS mission details, evidence collection, and evidence impound/upload of every operation per Section 4.18 of this operations manual.

4.19 DOCUMENTATION OF UAS TRAINING AND OPERATIONS

A. At the conclusion of an Operational Mission, the RPIC will document the UAS operation on an ARJIS-9 that includes the below details and submit this report into NETRMS in a timely manner:

a. Total UAS mission start/stop

b. Specific flight times for RPICs and Aircraft used

c. Airspace authorization acquired

d. General area flown over

e. General summary of UAS operation conducted, actions taken, and evidence collected

f. Disposition of evidence

g. Any significant UAS details related to law enforcement

h. Any significant aircraft collisions or damage

B. Pre-Flight Checklist and flight notes taken at the scene and annotated on the electronic preflight checklist will be submitted to the UAS Unit Sergeant for review and retention via email to **(Deleted – records of security)**. The UAS Unit Sergeant or designee will save these electronic documents in the Operational or Training missions electronic tracking folders.

C. All airspace authorization documents and Notices to Airman (NOTAM/DROTAM) acquired for UAS Operations will be sent to **(Deleted – records of security)** and ultimately retained as an electronic support document in the Operational or Training missions electronic tracking folders

D. For training missions and media relation mission that do not have any nexus to law enforcement action, investigation or evidence collection, an ARJIS-9 is not generally required. Only the Pre-Flight Checklist, flight notes, airspace approval and NOTAM/DROTAMs taken at the scene and annotated on the electronic preflight checklist document will be submitted to the UAS Unit Sergeant for review and retention into the Training Flights electronic tracking folders. An ARJIS-9 will only be required if a significant aircraft collision occurs, in which case an event number will be requested from dispatch.

E. Every UAS aircraft's flight time will be tracked to the nearest 1/10 of an hour for both training and operational missions.

F. Every UAS operator's flight time, as either the RPIC or VO, will be tracked to the nearest 1/10 of an hour for both training and operational missions.

G. The UAS Sergeant or designee will:

1. Retain the electronic copies of all Pre-Flight Checklists, Flight Notations tracking documents, NOTAMs generated and Airspace Authorizations for all training and operational missions and archive them in their respective **(Deleted – records of security)** electronic folders.

2. Manually enter flight time totals into the electronic tracking logs.

3. Utilize the flight log tracking system to generate flight log reports and compare them to manual tracking to identify discrepancies monthly.

4. Prepare monthly tracking information and submit a report through the FAA COA Application Processing System (CAPS). This is required per the SDPDs COAs acquired through FAA CAPS.

4.20 NIGHT OPERATIONS

A. DEFINITION: Title 14 Code of Federal Regulations (14CFR) part 1 states: "Night means the time between the end of evening civil twilight and the beginning of morning civil twilight as published in the American Air Almanac, converted to local time.

B. Both the RPIC and VO crew members must have completed the SDPD UAS Training Module that covers the physiological conditions degrading night vision and visual illusions caused by darkness.

C. To be used in a nighttime mission, the aircraft must be affixed with anti-collision lights (white strobe lights) visible up to 3 nautical miles. Exceptions can be made during high risk missions where the use of UAS lighting will compromise the safety of ground personnel with the approval of the UAS Unit Sergeant and notification to the Operational Support Commanding Officer.

D. UAS team members should obtain the minimum altitude necessary to avoid obstructions in the operating area prior to nightfall if at all possible.

F. Because of field of view distortion issues, night vision goggles may not be used as the primary means for visual observation duties.

4.21 UNIFORM/PERSONAL EQUIPMENT

All grooming, dress, and uniform guidelines are set forth in the Department Procedures and are applicable to personnel assigned to the UAS Unit.

A. Collateral duty officers who are assigned to the UAS unit are authorized to wear the standard uniform of their primary duty position. UAS personnel in the field are required to wear their soft body army, their department approved firearm, spare magazines, and handheld radio.

B. Officers who are assigned to the UAS Unit, and are required to appear in court, will comply with Department Procedures for dress.

D. Officers attending official ceremonies or special presentations will wear their Department Class "A" or "B" uniform in compliance with Department Policy

5.10.

F. Any deviations from this policy must have prior approval from the Unit Sergeant.

G. Officers choosing to wear a department uniform en route to, or from, work shall cover/remove Department or Unit insignia, badges, etc., unless they are driving a department vehicle

4.22 COMPLAINT INVESTIGATIONS

A. Complaints shall be addressed in accordance with Department Procedure 1.10 Citizen Complaints, Officer Involved Shootings, and In-Custody Deaths, Receipt, Investigation, and Routing.

SECTION FIVE

TRAINING

5.1 UAS TRAINING

A. Training Plans

1. The SDPD UAS Training Academy will be developed and maintained by the UAS Sergeant and the UAS LTOs.

2. All UAS RPIC candidates will complete the SDPD UAS Training – RPIC Training Track before they can serve as an SDPD UAS RPIC on operational missions.

3. For new full time UAS LTOs and co-lateral RPIC candidates, the initial training program will include the full UAS Training Academy's "RPIC Training Track" regimen of courses that cover the following training concepts:

   a. Part 107 Remote Pilot Preparation and Test Orientation
   b. Safety and Basic Flight Operations
   c. Legality and Department Procedures
   d. Intermediate Flight Operations
   e. Aircraft Specific Training
   f. Advanced Flight Operations

4. Full time UAS LTOs and selected Co-lateral RPICs may be selected to complete the UAS Training Academy's "Operations Leader Training Track." This training will qualify them to be a designated UAS Operations Leader and acting UAS field Supervisor. The UAS Training Academy's "Operations Leader Training Track" regimen of courses covers the following training concepts:

   a. Airspace Mastery
   b. Operations Leader Training and Evaluations

5. All UAS VO candidates will complete the SDPD UAS Visual Observer Training Track before they can support an operational mission.

6. All UAS LTOs and Co-lateral RPICs will participate in monthly and quarterly training objectives to maintain operational proficiency. Monthly training objectives may vary depending on the types of UAS airframes and types of UAS missions the RPIC is certified to execute.

6. Specific course modules for the UAS Training Academy Regimen, training presentations, and training support documents will be maintained and updated by the UAS Unit Sergeant and UAS LTO. Further details on the specific courses and presentations can be found in the UAS Training Academy Binder and UAS Unit Folder in the G: Drive.

7. For monthly training, crewmembers will focus on quarterly Operational Competency Flight testing, new training lessons on equipment and tactics, updates related to laws, regulations, procedures, and experiential lessons learned.

8. Objectives should challenge the member to increase their competency in the knowledge and skills necessary to perform.

9. UAS training completion, aircraft certification, mission qualification and overall RPIC status are maintained in training files and reviewed monthly to ensure progress toward objectives.

B. The following procedures will be adhered to prior to conducting any new flight training lesson.

1. The initiating officer will describe the overall concept with the UAS Sergeant, and Training Officer.

2. Whenever possible, the initiating officer will provide material relevant to the proposed mission. The material should include, but not be limited to:

a. Any applicable Federal Aviation Regulations and Department Policies and Procedures.

b. Any applicable aircraft limitations that could affect the ability of the crew to perform the mission; and,

c. A risk assessment matrix identifying all potential hazards and mitigating actions.

3. In the opinion of the Safety Officer, the training must be able to be conducted within an acceptable level of risk.

4. In the opinion of the Training Officer, the training must provide a beneficial lesson or skillset.

5. The initiating officer should be prepared to present a mock training session and be able to answer pertinent questions, including projected costs, estimated training time, benefits to the department etc.

6. The UAS Unit Sergeant will make the final decision on whether or not the training will be conducted and adopted into the UAS training regimen.

C. Recurrent Operator Competency Skills Training

1. Every 90 days, every current RPIC must complete the Operator Competency Skills test to maintain operational status with the UAS program.

2. Specific elements of the Operator Competency Skills Test can be found in the *Module 302 - Operator Competency Skills Test* Document.

3. The Operator Competency Skills Test will primarily be conducted using aircraft that are designated as "training equipment" due to the higher potential for contact or collision with testing aids.

4. Based on a the amount of flight time, training missions, operational missions, and participation in the UAS program in the previous 90 days, the Unit Sergeant or UAS LTO may assign additional monthly training or additional aircraft specific training to an individual RPIC as deemed necessary to maintain aircraft operator proficiency.

D. Monthly/Quarterly Training

1. Monthly and Quarterly training sessions will be held at multiple dates every month. Scheduling and notifications of these training days will be organized by the UAS staff.

2. Co-lateral RPIC's are responsible for attending these training sessions each month or quarterly based on the types of aircraft and types of missions they are certified to execute.

3. These monthly/quarterly training sessions can be classroom or flight training and will be utilized to:

   a. Provide new UAS related information to RPICs.

   b. Train on new equipment.

   c. Provide refresher training on difficult equipment or procedures.

   d. Train on new and revised Department Policies and Procedures related to UAS operation or lessons learned from prior missions.

E. Annual RPIC Training

1. An annual RPIC classroom training session may be held at the beginning of the calendar year every year to address FAA regulation or legal updates and other training as needed. Scheduling and notifications of these training days will be organized by the UAS LTO.

2. RPIC's shall complete this annual training when scheduled to maintain operational status with the UAS program.

3. This annual RPIC training session may contain both classroom and flight training portions and will be utilized to:

   a. Complete 4-hour refresher training on Module 201 – 4th Amendment, Civil Rights and Civil Liberties.

   b. Provide new UAS related information to RPICs.

   c. Train on new equipment.

   d. Provide refresher training on difficult equipment or procedures.

   e. Train on new and revised department policies and procedures related to UAS operation or lessons learned from prior missions

F. Additional specific training goals and objectives can be assigned to an individual RPIC, a group of RPICs, or the entire UAS Unit depending on legal or situational necessity, the type of training, or the experience level of each individual operator.

5.2 SDPD UAS RPIC TRAINING COURSE DESCRIPTIONS

A. SDPD UAS RPIC Training Program

1. The following training tasks and requirements are proposed to ensure SDPD UAS operations are carried out safely and effectively. All Training can be conducted "in-house" by existing UAS Program instructors and evaluators unless otherwise noted. All flight trainings require an Evaluator and a Visual Observer in addition to the RPIC being trained/evaluated.

B. Module Series 000 – Pre-Training

1. Module 001 – DOT/FAA Part 107 Remote Pilot Certification - This is the test to acquire the Remote Aircraft Pilot's license. This is an FAA requirement for any UAS Pilot who operates a UAS for a Commercial Purpose or a Public entity. This test requires approximately 40-80 hours of study time for a non-pilot. This cost of this certification is approximately $175.00 and lasts for 2 years. Certification can only be acquired by a certified FAA approved testing center. Tutoring and preparation for the certification can be conducted by current SDPD UAS Operators in house. This Certification only tests for adequate knowledge of UAS related rules and regulations but does not require or teach any actual UAS flight operations, SDPD UAS Operations, nor any UAS flight training.

C. Module Series 100 – Safety and Basic Flight Operations

1. Module 101 – Safety Briefing and Hazard Assessment Training – This training will take approximately 2 hours. Multiple students can receive the training at a single time. This training will prepare Remote Pilot Operators to know how to conduct a pre-flight safety hazards analysis and present a pre-flight safety briefing to the entire remote aircraft flight crew. Safety guidance from FAA CFR Part 107, Safety procedures from DP 8.23 Section VII., and the Safety Program from the SDPD UAS Operations Manual will be reviewed.

2. Module 102 - Pre-Flight Checklist Training - This training will take approximately 1 hour over multiple sessions. This training will be introduced at the end of Module 101 in the classroom. Multiple students can receive the classroom training at a single time. Training will be evaluated on performance and completion in a field setting for both "Challenge" and "Confirmation" roles using both the paper version and digital version of the SDPD pre-flight checklist.

3. Module 103 – UAS Display/Controller Training - This training will take approximately 2 hours of classroom time. Multiple students can receive the training at a single time. This course will cover the basic functions of SDPD UAS equipment and software for using controllers and displays in conjunction with various department approved UAS. Additional advanced aircraft specific controls and software applications for specialized sensors and equipment will be conducted in UAS Specific training during classroom and individual flight time.

4. Module 104 – New Operator Basic Orientation (NOBO) Flight Training - This training will take approximately 3 hours of flight training per person. Only one student can receive the training at a time. This Course teaches and evaluates the basic operation of flying a UAS safely. This training may be the first time a student has ever flown a UAS and will be conducted under safe and controlled conditions.

D. Module Series 200 – Legal and Departmental Procedures

1. Module 201 – Privacy Civil Rights, Civil Liberties Training – This training will take approximately 4 hours. Multiple students can attend this training in a classroom setting at a single time. Operators will be taught the legal aspects of Privacy, Civil Rights and Liberties as pertaining to UAS operations, and the related case law surrounding their use. *Four hours of this training will be required annually.

2. Module 202 - Department Procedures and Operations – This training will take approximately 2 hours. Multiple students can attend this training in a classroom setting at a single time. Operators will be given thorough instruction on the SDPD UAS Department Procedures and Operations Manual.

3. Module 203 – Evidence Retention and Documentation – This training will take approximately 2 hours. Multiple students can attend this training in a classroom setting at a single time. Operators will be given thorough instruction and guidance on the procedures for UAS obtained evidence chain of custody, retention, and uploading to evidence.com. Operators will also be taught how to document UAS operational deployments to comply with FAA Regulation compliance and be given example templates.

E. Module Series 300 – Intermediate Flight Operations

1. Module 301 – Tactical Flight Training – This training will take approximately 4 hours of flight training per person. The course is designed to increase pilot skills and provide operators with the ability to operate in non-traditional UAS environments and how to operate in support of a tactical team mission. This training will teach pilots to operate a UAS in low altitude environments with a high degree of physical hazards and obstacles by instructing on the tenants of spatial awareness and three dimensional airspace navigation.

2. Module 302 - Operator Competency Test Training - This training will take approximately 1 hour of flight training per person. Only one student can receive the training at a single time. This Course teaches the standardized tasks that will be required to complete the UAS program monthly Competency Test. Once an operator completes the entire UAS Training Program Regimen, they will be required to complete the 20-minute Competency Test once every 3 months to ensure they are remaining capable and proficient to conduct flight operations.

3. Module 303 – Field Support Equipment – This training will take approximately 6 hours. Multiple students can attend this training at a single time and will involve outdoor training, (non-flight). This course will teach new operators how to deploy, operate, maintain, and recover all non-UAS support equipment to include generators, area lighting, command post video monitor, HDMI downlink networks, launch/land area markers, battery recharging banks, workstations, documents binders, etc. The class will also familiarize the operators with the UAS Response Vehicle and the UAS Command vehicle that will be used to transport and store the UAS Kits and Field Support equipment.

F. Module Series 400 – Aircraft Specific Training Series – These trainings will take approximately 2-3 hours per person for each different UAS Model. Training will teach the specific characteristics, functions, and capabilities of the particular UAS Model. Modules in the 400 Series only need to be completed to be certified to operate the specific model of UAS they address.

1. Module 400 – UAS Specific – DJI Phantom

2. Module 410 – UAS Specific – DJI Matrice

3. Module 420 – UAS Specific – SRT UAS Training

4. Module 430 – UAS Specific – DJI Mavic

5. Module 440 – UAS Specific – DJI Mavic Air

6. Module 450 – UAS Specific – Parrot Anafi Thermal

7. Module 460 – UAS Specific – Acecore Zoe

8. Module 470 – UAS Specific – DJI Avata

9. Module 490 – UAS Specific – Hoverfly Spectre Tethered UAS.

G. Module Series 501 – Advanced Flight Operations

1. Module 501 – Night Physiology – This training will take approximately 2 hours. Multiple students can attend this training at a single time and will involve classroom training and a test. The classroom portion involves lessons on the physiology of night operations for pilots for both manned aircraft and UAS operations. This class is required for the department to file for a FAA Daytime Certificate of Waiver (COW) that will be added to our current COAs and will allow the SDPD operators to conduct missions at night.

2. Module 502 – Night Operations – This training will take approximately 2-4 hours of flight training per person. Students will conduct flight training in night conditions and operate the UAS in a controlled outdoor environment. Students will learn how to assess an area for night time hazards, use auxiliary area lighting, use UAS anti-collision lighting, use UAS mounted spotlights, and operate UAS mounted IR and thermal camera systems on multiple UAS platforms.

3. Module 503 – Officer Support Training (UAS TFO Lite) – This training will take approximately 2 hours of classroom instruction. Multiple students can attend the class portion at a single time. Based on the Air Support Unit's Tactical Flight Officer Program, Operators will be taught TFO theory and practices that will allow RPIC's to provide enhanced support to patrol officers, investigators and incident commanders during operations. The lessons focus on supporting dynamic tactical operations, effective communication, suspect tracking, dynamic video recording, and FLIR search techniques.

4. Module 504 – RPIC Advanced Flight Scenarios – This training/evaluation will take approximately 4 hours for a single RPIC student. The RPIC student will be given 2 practical UAS support scenarios to execute in a UAS Program controlled exercise that combines lessons from all previous trainings to evaluate their ability and proficiency of completing a UAS mission as a stand along RPIC. The UAS Operations Leader will be given a VO role player that they must delegate tasks to and lead to the successful completion of the UAS Exercise Scenario.

5.3 SDPD UAS OPERATIONS LEADER "UAS Sergeant" TRAINING COURSE DESCRIPTIONS

A. SDPD UAS OPERATIONS LEADER "UAS Sergeant" Training

1. SDPD UAS Training Module Series 600 and 700 will be instructed to RPICs who have been selected to be designated UAS Operations Leaders. They will be trained with the knowledge and skills to assess requests for UAS operations, conduct airspace assessments, acquire restricted airspace authorizations, and lead operational UAS missions. Completion of the entire SDPD UAS RPIC Training Regimen is a prerequisite for the UAS Operations Training Track. After completion of the Operations Leader training courses and with the approval from Operational Support Command Staff and the UAS Unit Sergeant, an officer may serve as an Acting UAS Sergeant for UAS Operations when assigned.

B. Module Series 600 – Airspace Mastery

1. Module 601 – UAS Flight Support Tablet Training – This training will take approximately 1 hour. Multiple students can attend this training in a classroom setting at a single time. This training will teach an operator how to use the iPad Support Table to access the multiple computer applications necessary to acquire FAA Authorization, weather hazards, identify controlled airspace, location, and vector headings, and access the FAA's UAS notification system (DROTAMS).

2. Module 602 - Weather Hazard Recognition – This training will take approximately 1 hour. Multiple students can attend this training in a classroom setting at a single time. This will teach an operator how to use multiple online weather applications to evaluate real time and future predicted weather hazards related to UAS operations in the San Diego airspace.

3. Module 603 – Airspace Identification - This training will take approximately 2 hours. Multiple students can attend this training in a classroom setting at a single time. Because operators only learn a limited amount of airspace regulations when preparing for their Part 107 Remote Pilot's license, additional training is needed to be safe and compliant with FAA regulation. This class will teach an operator how to further determine airspace criteria to ensure a comprehensive understanding of the San Diego area. This class will focus primarily on the specific controlled airspace conditions of San Diego City and County, local airports, and helicopter pads, VHF Omnidirectional Radar (VOR) beacons, and common aircraft flight patterns and airways.

4. Module 604 – Airspace Authorization and Notification – This training will take approximately 6 hours. Multiple students can attend this training in a classroom setting at a single time. This class will teach an operator the details of the FAA approved Blanket Certificate of Authorization (COA) that allows SDPD to operate as a public entity and the conditions that must be followed to comply with the COA. The class will teach operators how to access, complete, and file an Emergency COA (ECOA), which will allow operators to conduct law enforcement related missions in controlled airspace, how to submit requests for airspace authorization through Airmap using the LAANC system and the FAA UAS Facilities map. The class will teach the details of the SDPD Jurisdictional COA and the SDPD Daylight Waiver and how they provide authorizations for SDPD UAS personnel in specific restricted airspace. The class will teach operators how to file and remove a Drone Notice to Airman (DROTAM), this is a real time aviation notification which is an FAA requirement of our COAs for any operational or training flights.

C. Module Series 700 – UAS Operations Leader Training and Evaluation

1. Module 701 – Mission Specific Evaluation Training – This training will take approximately 2 hours of classroom time as a group and 2 hours of individual flight time. Operators will be given practical UAS support scenario examples and will be taught how to evaluate the scenario, liaison with the case agent or incident commander to provide the optimal support. Operators will identify which aircraft to utilize and which UAS missions to complete to best support the overall mission objectives.

2. Module 702 – UAS Unit Field Exercise Scenarios – This training/evaluation will take approximately 10 hours for a selected UAS Operations Leader candidate. UAS Operations Leaders will be given practical UAS support scenarios to execute in a UAS Program controlled exercise that combines lessons from all previous trainings to evaluate their ability and proficiency of completing a UAS mission. The UAS Operations Leader will be given an RPIC/VO team that they must delegate tasks to and lead to the successful completion of the UAS Exercise Scenario.

3. Module 703 – Full Spectrum Field Exercise Scenarios – This training/evaluation will take approximately 2-10 hours of RPIC/VO Team flight training. Operator Teams will be given practical UAS support scenarios to execute in an SDPD controlled exercise that combines lessons from all previous trainings and integrates operational tasks with dispatch, Incident Commanders, SWAT Tactical Operations Commanders, Air Support Unit, K-9, and investigative supervisors, to

evaluate the UAS operators for complete operational readiness and integration with existing patrol support units.

5.4 SDPD UAS VISUAL OBSERVER (Non-RPIC) TRAINING COURSE DESCRIPTIONS

A. SDPD UAS VISUAL OBSERVER (VO) Training

1. The VO Module Series will be instructed to non-RPICs who have been selected to be department approved Visual Observers during SDPD UAS training and operational flights. Prior to being qualified to support an operational mission, the VO candidates must complete the following 4 VO classroom courses and must log 1 hour of VO field experience in a UAS flight training environment. The UAS Sergeant must observe and review their VO performance and ultimately approve them to support UAS operational missions.

B. Module Series 100VO – Visual Observer Training Courses (Non-RPIC)

1. Module 101VO – Orientation to UAS, Visual Observer Instruction, and UAS Safety – This training will take approximately 3 hours. This Module will orient VO candidates on the basics of UAS operations and the SDPD UAS program focusing specifically on the role and duties of the Visual Observer. The class will teach students how to be effective and safe Visual Observers on a UAS flight crew. The class will teach students how to assist the RPIC with airspace situational awareness and hazard avoidance of both stationary obstacles and other aircraft.

2. Module 102VO – Department Procedures and Operations – This training will take approximately 1 hours. Multiple students can attend this training in a classroom setting at a single time. Operators will be given a basic instruction on the SDPD UAS Department Procedures and Operations Manual as related to VO duties and responsibilities

3. Module 103VO – Field Support Equipment – This training will take approximately 1 hour. Multiple students can attend this training at a single time and will involve outdoor training, (non-flight). This course will teach VO candidates a basic overview of the UAS Units Field Support Equipment. (This course is not mandatory for VO Certification and can be completed at a later time)

4. Module 104VO (RPIC Module 501) – Night Physiology – This training will take approximately 2 hours. Multiple students can attend this training at a single time and will involve classroom training and a written test. The classroom portion involves lessons on the physiology of night operations for pilots of both manned aircraft and UAS operations. This class is required for the department to file for a FAA Daytime Certificate of Waiver (COW) that will be added to our current COAs and will allow the SDPD Visual Observers to support UAS missions at night.

SECTION SIX

EVIDENCE COLLECTION AND RETENTION

6.1 OVERVIEW

Workload permitting, the following events should be video recorded:

A. Incidents that are of possible evidentiary value in criminal cases.

B. Special events in a public venue upon request from the incident commander or while observing a police contact, or potential criminal or terrorist activity.

C. Any incident that will enhance the operation of the Police Department or contribute to future department training as long as the operation is in compliance with existing privacy and 4th amendment laws and policies.

D. When practical, the RPIC or UAS Sergeant may advise via the radio that the incident is being video recorded.

6.2 EVIDENCE COLLECTION AND RETENTION

A. The RPIC is the custodian of evidence collected during the flight mission and will be responsible to process, document and impound/upload any evidence.

1. Only authorized personnel shall use or be in possession of UAS related digital storage devices or data memory cards.

2. The RPIC is responsible for uploading all UAS operation digital video evidence and photographic evidence to **(Deleted – records of security)** and verifying the evidence was retained.

3. If the evidence.com program is not available, the RPIC is responsible for uploading all UAS operation digital video evidence and photographic evidence onto a computer compact disk and impounding that disk in the headquarters property room in accordance with DP 3.02 prior to the end of shift.

4. All UAS obtained evidence will be retained and electronically labeled according to SDPD UAS Training Module 203.

5. When digital evidence is needed for review or examination during an ongoing, active investigation, a working copy may be created on compact disk and provided to the investigative unit. Chain of custody of both copies will be documented in an ARJIS-9 by the RPIC.

6. During digital evidence transfer and impound/upload, the RPIC must make every effort to ensure any digital evidence is not inadvertently saved on any unintended electronic devices.

7. After completing evidence upload from the UAS digital storage device to either evidence.com or a compact disk, the RPIC will give the original micro SD Card or storage device to the UAS Sergeant for verification of transfer.

8. The UAS Sergeant will verify that all digital evidence has been retained on the "**(Deleted – records of security)**" server and verify metadata has been appropriately labeled and the retention categories have been assigned. The UAS Sergeant will upload a copy of all UAS digital evidence on a secured UAS Unit hard drive that will be retained for 2 years. Once completed, the UAS Sergeant or delegated LTO will erase the digital evidence off of the recording device or micro-SD card and return the blank card to the appropriate UAS.

9. All digital evidence collected using UAS support in an operational mission is considered an investigative record for the San Diego Police Department and is for official use only.

10. Accessing, copying, forwarding or releasing any digital evidence for other than official law enforcement uses and contrary to this procedure is strictly prohibited. Public release of digital evidence is prohibited unless approved by the Chief of Police or designee.

11. Personal computer equipment and software programs shall not be utilized when making copies of digital evidence. Using a second device such as a video camera, cell phone, or other device to record or capture digital UAS evidence is strictly prohibited.

6.3 RETENTION OF DIGITAL EVIDENCE

A. All collected UAS digital evidence related to any criminal proceeding, claim filed, pending litigation, or a personnel complaint, shall be preserved until that matter is resolved and/or in accordance with the law and SDPD retention settings established on sdpd.evidence.com.

B. UAS personnel and investigators are required to ensure that UAS obtained digital evidence is properly categorized for the appropriate retention period in sdpd.evidence.com.

6.4 ACCESSING AND REVIEWING IMPOUNDED DIGITAL UAS EVIDENCE

A. Procedures for accessing and reviewing digital evidence from Sdpd.evidence.com can be found in Department Procedure 1.49.

SECTION SEVEN

MAINTENANCE

7.1 MAINTENANCE AND INSPECTION SCHEDULE

A. Monthly inspection and routine maintenance tasks will primarily be accomplished by the UAS Logistics and Training Officer (LTO) and designated SWAT SRT/UAS officers:

1. The LTO will inspect and address all non SRT UAS equipment and vehicles.

2. Designated SWAT SRT/UAS Officers will inspect the SWAT UAS Response (SRT) Kit.

B. Specific maintenance tasks and responsibilities are listed in the UAS Unit Maintenance Guide.

C. The UAS LTO is responsible for developing the UAS Maintenance Program and for maintaining an up to date UAS Maintenance Guidance document for all UAS, field support equipment, and IT equipment. The Maintenance Guidance document will include software/firmware update procedures and tracking documents for all UAS related equipment.

SECTION EIGHT

UAS SAFETY PROGRAM

8.1 SAFETY POLICY

The San Diego Police Department Unmanned Aircraft System Unit supports all requirements of law regarding safety and operational standards and intends to provide all employees with a safe and healthy working environment. It is the Unit's intention to eliminate or reduce accidental injury to Unit personnel or the public, and damage to aircraft or property. The UAS Safety Program includes all aspects of UAS flight safety, maintenance safety, equipment safety, and fire prevention.

8.2 COMMITMENT TO SAFETY

A. The San Diego Police Department Unmanned Aircraft System Unit is committed to having a safe and healthy workplace, including:

1. The ongoing pursuit of an accident free workplace, including no harm to people and no damage to equipment, the environment, or property.

2. A requirement for open reporting of all safety hazards.

3. Support for safety training awareness programs.

4. Conducting regular inspections of safety policies, procedures, and practices.

5. Monitoring the UAS community to ensure best safety practices are incorporated into the organization

B. It is the duty of every agency member with UAS responsibilities to contribute to the goal of continued safe operations. This contribution may come in many forms and includes always operating in the safest manner feasible and never taking unnecessary risks. Any safety hazards, 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 Lieutenant, UAS Sergeant, or designated UAS Safety Officer without reservation.

C. If any member of the UAS program observes or has knowledge of an unsafe or dangerous act committed by another member, the UAS Lieutenant, UAS Sergeant, or designated UAS Safety Officer shall be notified immediately so corrective action may be taken.

8.3 SAFETY MANAGEMENT PHILOSOPHY

A. The basic precept of the Unit's safety program is one involving attitude.

1. The basis for continued success is the healthy attitude of all personnel involved in the Department's UAS law enforcement program.

2. The desired attitude can be maintained through the principles outlined in this section of the Operations Manual.

B. The purpose of the UAS Unit safety program is to preserve human and material resources, thereby making them available for Department operations.

C. **No mission, flight, or aspect of any task is more important than the integrity of personnel, equipment, or property.**

8.4 SAFETY PROGRAM GOAL

A. The goal of the UAS Unit safety program is the elimination of all UAS aviation and industrial incidents/accidents/mishaps.

B. Unit members must collect all available resources to minimize incidents/accidents/mishaps.

8.5 SAFETY IN COMMUNICATIONS

A. Inherent in the safety management program is the need to generate effective communication.

1. Each person involved in the Department's UAS law enforcement program is vital to the success of the safety effort.

2. Each person is an integral part in the communication network.

3. Every person must have a clear understanding that safety has the highest priority, and missions have a lower priority.

4. Remote Pilots in Command have the discretion to deviate from missions in the interest of safety.

B. Crew Resource Management Communication Concepts: Basic to the Crew Concept is the idea that a well-coordinated crew acting together is much more effective than the sum of the skills of the individuals. Included are such things as:

1. "Open Communication" policy, wherein it is desired and expected that each air crew member clearly communicates his/her input during each event, such as status, feelings, questions, ideas, and doubts;

2. "Permission To Be Wrong" policy, wherein it is acknowledged that no one is perfect, and mistakes must be quickly identified, acknowledged, and corrected.

3. "Delegation" policy, wherein as much of the operational mission workload as possible is equitably shared among all crew members, thereby freeing up as much time as possible and reducing stress.

4. "Clear Communication" policy, wherein intra-crew communication is stressed, and questions encouraged in an effort to eliminate misunderstood communications, reduce workload and reduce fatigue and stress.

8.6 RISK MANAGEMENT

The most significant contribution to the safety effort made by Unit personnel is in the area of Risk Management.

A. Risk management is the identification and control of risk according to preconceived parameters.

B. ENVIRONMENT + MACHINE + HUMAN(S) = LEVEL OF RISK

C. Table 1 is an example of some of the variables which could be a factor in a risk management evaluation process. These conditions create a very fluid state and necessitate the risk management process.

TABLE 1

Potential Hazards

Environmental	**Machine**	**Human**
Weather	System Availability	Attitude
Obstructions	Maintenance History	Health
Regulations (Restrictions)	Avionics & Police Radios	Workload
Facilities Condition	Weight & Balance	Skill Level
Mission Requirements	Accessories Availability	Personal Habits

Command Interest	Suitability to Mission	Mission Experience
Supervisory Pressure	Performance Capabilities	Work History

D. This evaluation must start in pre-flight safety briefing and preparation. In most cases, this evaluation can be accomplished in a manner of seconds. Unusual missions demand a more careful consideration.

E. This simple, formalized process reinforces the normal common-sense decisions which are a way of everyday life. The major value of this process is that it presents a standard method to identify and measure risk exposure in terms that can be easily communicated and understood.

F. This process acknowledges that no activity, including flight, can be free from hazard. All possible actions must be taken to eliminate as many sources of hazard as is possible and provide protection against those hazards that cannot be eliminated.

G. The decision whether to eliminate a hazard or protect against it is based on two key factors:

1. The likelihood of the hazard becoming a reality

2. The resources available to reduce the hazard to an acceptable level

H. When this process is working properly, the product is a safer activity.

8.7 UAS PERSONNEL RESPONSIBILITIES

A. This section describes certain assignments within the UAS Unit as they impact the Unit Safety Program.

B. Commanding Officer Responsibilities

1. The Commanding Officer, Operational Support Captain, is the Chief of Police designee for the management of the Department's UAS Safety Program.

2. Sufficient authority is delegated to specific subordinate members of the UAS Unit to assume the day-to-day activities involved. The two key personnel in that function are the UAS Sergeant and the designated UAS Safety Officer.

C. UAS Sergeant Responsibilities

1. The Unit Sergeant is responsible for completing a risk evaluation regarding each operational and training flight. This conscious process recognizes the continuing need to anticipate rather than react.

2. Consistent with the provisions of Federal Aviation Regulations Part 830.2, the Unit Sergeant who causes or authorizes a department aircraft flight (either verbally or via a flight schedule) is by definition an "Operator" of the aircraft.

3. As an "Aircraft Operator", the Unit Sergeant is responsible for personally conducting risk management during the preparation of an aircraft flight, during any direction to a Unit RPIC to operate a Department aircraft and at any other time which is consistent with the need for such risk management activities.

4. Any deviation from Department or Unit safety standards must be identified and corrective action taken immediately by the Unit Sergeant. Extremes include the "grounding" of a non-conforming UAS crew member until a solution is reached.

5. This system, when properly implemented, provides prompt and correct response to potentially serious situations.

6. The UAS Sergeant holds key responsibilities within the Unit's safety management process. They include:

   a. Taking appropriate action once a hazard is identified.

   b. Instituting an effective communication system within the Department's UAS program (to include each person involved in the program).

   c. Advising and assisting the UAS Safety Officer in the management of the Unit's safety program; and,

   d. Maintaining incident/accident/mishap response plans and ensuring concerned personnel are familiar with their use.

D. RPIC Responsibilities

Through the chain-of-command, certain authority is delegated.

1. The Remote Pilot in Command of each Department flight assumes responsibility for the safe conduct of that flight and all issues associated with risk management.

2. Federal Aviation Regulations, Part 91.3 - Responsibility and authority of the pilot in command, states in part:

   a. Section 4(a): The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft.

   b. Section 4(b): In an in-flight emergency requiring immediate action, the pilot in command may deviate from any rule of this part to the extent required to meet that emergency.

E. Individual Responsibilities

Each UAS crew member must consciously evaluate each aspect of a task he/she is involved with to determine what risks exist, and whether that risk is acceptable. If the risk is not acceptable, each person must take immediate action to eliminate the risk or bring it to an acceptable level. It is everyone's responsibility to conduct themselves in a manner which is consistent with the safety program goal of incident/accident/mishap prevention. In that effort, individual responsibilities include:

1. Constantly maintaining an attitude which is positive and acknowledges that the individual can prevent incidents/accidents/mishaps;

2. Remaining aware of people and circumstances in the immediate vicinity (i.e., situational awareness), to include partners, other UAS crew personnel, support personnel, flight operations, etc.; and,

3. When an undesirable situation is observed, take immediate and positive action to correct the situation.

8.8 SAFETY PROGRAM TRAINING

The nature of operations conducted at the UAS Unit makes it essential that everyone assigned to the Unit understands potentially critical safety-related information.

A. Safety Briefing Training – SDPD UAS Training Module 101

All UAS Operators will attend SDPD UAS Training Module 101 – Safety Briefing Training soon after their approval of assignment to the UAS unit. This training will cover the following objectives related to UAS Safety:

1. A review of the UAS Safety Program culture, philosophy, goals, objectives, the individual roles and responsibilities as an RPIC or general crew member, hazardous reporting avenues, and safe communication methodology.

2. Operator's instructions on how to complete a hazardous risk analysis and minimization through mitigating actions.

3. Preparation of Remote Pilot Operators to conduct a pre-flight safety hazards analysis and present a pre-flight safety briefing to the entire remote aircraft flight crew prior to every operational mission or training flight.

B. Pre-Flight Safety Briefing

The RPIC of each Department UAS flight involved in specialized operations or training (e.g., S.W.A.T. operations, evidence collection, search and rescue, etc.) shall be responsible for a specialized safety briefing of all involved persons. Included in each such brief shall be:

1. A review of each person's role in the operation or training evolution.

2. A detailed review of unique characteristics, shortcomings, hazards, etc., of each piece of equipment to be used during the training.

3. A detailed review of each person's responsibilities in special assignments: (RPIC, VO, Instructor, Evaluator, Safety Officer).

4. A detailed review of personnel positioning and acts in and around UAS aircraft.

5. A review of probable UAS crew acts associated with any in-flight emergency; and,

6. For Training Exercises, the following statement maybe be read to all involved persons, to quote:

"**THIS IS A TRAINING EXERCISE. NOTHING WE ARE ABOUT TO DO IS SO IMPORTANT AS TO JEOPARDIZE SAFETY OR PERSONAL WELL-BEING. EACH PERSON IS ADVISED THAT SAFETY HAS THE HIGHEST PRIORITY AND THAT THE CONDUCT OF ANY TRAINING HAS A LOWER PRIORITY. EACH PERSON IS TO REMAIN VIGILANT TO THE POTENTIAL FOR UNACCEPTABLE RISK AND, WHEN SUCH RISK IS IDENTIFIED, TAKE IMMEDIATE ACTION TO ELIMINATE THAT RISK.**"

8.9 EMERGENCY RESPONSE PLAN

A. Pre-planning for emergencies

1. Prior to any UAS operation, the RPIC will identify the nearest emergency medical facility and brief all involved personnel on the emergency transportation plan.

   a. Safety response training will be conducted annually.

   b. All members will be current about first aid training.

B. During UAS Operations, emergency situations may develop at any time. The primary concern in such incidents is the prevention of injury to persons on the ground and/or other users of National Airspace. Secondary concerns include protection of property and non-living entities on the ground.

C. For UAS incidents/accidents/mishaps or collisions causing personal injury and/or property damage, the aircrew shall do the following:

1. Follow the guidelines outlined in the FAA Certificate of Authorization.

2. Render first aid to the injured.

3. Request notification of the UAS Unit Sergeant who will respond to the scene and coordinate the investigation efforts for injury and/or property damage.

4. Notify the UAS Lieutenant and the Operational Support Commanding Officer.

5. Request the FAA and NTSB be notified via the UAS Unit Sergeant.

6. Survey the damage to the UAS and/or other property.

7. Prior to the arrival of the FAA and NTSB, ensure the UAS and its components are moved only to the extent necessary to remove injured, protect the public from injury and/or protect wreckage from further damage.

8. Provide any additional assistance or information requested by the FAA and NTSB.

9. Submit a detailed written report of the incident and follow up investigation.

10. Provide Risk Management information to the property owners if known.

D. For ground emergencies, personnel shall:

1. Evaluate the need for response of Fire or EMS.

2. Provide first aid and contain the incident scene.

3. Notify the UAS Unit Sergeant, UAS Lieutenant, and Operations Support Commanding Officer.

8.10 FAA ACCIDENT REPORTING

A. For FAA Accident Reporting, an accident is defined as:

1. Damage to any property, other than the UAS, if the cost is greater than $500.00 to repair or replace the property.

2. Serious injury to any person or any loss of consciousness.

B. All accidents must be reported to the FAA within 10 calendar days of the operation and shall include:

1. UAS Remote Pilot in Command's name and contact information.

2. UAS Remote Pilot in Command's FAA airman certificate number.

3. UAS registration number.

4. Date, time, and location of accident.

5. Person(s) injured and extent of damage if any or known.

6. Description of what occurred.

SECTION NINE

UAS PRIVACY, CIVIL RIGHTS, AND CIVIL LIBERTIES PROGRAM

9.1 DEFINITIONS

A. Digital Multimedia Evidence (DME) – Digital multimedia evidence is forensic information of probative value stored or transmitted in digital form.

B. Data Collection – Data collection means to collect and store digital media evidence, or other imagery or data using an unmanned aircraft.

C. Personally Identifiable Information (PII) – information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual.

D. Privacy Incident – The loss of control, compromise, unauthorized disclosure, unauthorized acquisition, unauthorized access, or any similar term referring to situations where persons, other than authorized users and for unauthorized purpose, have access or potential access to PII in usable form, whether physical or electronic. This term encompasses both suspected and confirmed incidents, whether intentional or inadvertent, involving PII which raise a reasonable risk of harm.

9.2 PRIVACY and C.R.C.L. POLICY

A. The San Diego Police Department is committed to the continued protection of civil liberties, rights, and privacies of individuals.

B. Members of the SDPD UAS Unit shall take reasonable precautions to avoid inadvertently recording or transmitting images of areas where there is a reasonable expectation of privacy.

C. The collection, use, retention, or dissemination of data shall not be used to violate the Constitutional rights of any person, or that would discriminate against any person based upon their ethnicity, race, gender, natural origin, religion, sexual orientation, or gender identity.

D. In all cases of UAS deployment, reasonableness and respect for the privacy of individuals shall guide the actions of all UAS Unit personnel.

E. UAS missions must comply with all local, state, and federal laws and regulations, and make reasonable effort to avoid collection, use, or sharing of sensitive data, particularly as it relates to PII, unless authorized by law.

F. UAS may not be used to violate an individual's reasonable expectation of privacy, unless authorized by law.

9.3 DATA COLLECTION AND RETENTION (as related to Privacy and C.R.C.L.)

A. The SDPD UAS team shall only collect data using UAS, or use UAS-collected data, to the extent that such collection or use is a benefit to the public and is collected consistent with legal authorities.

B. Data obtained may not be used for the following without consent: employment eligibility, promotion, or retention; credit eligibility; or health treatment eligibility unless expressly permitted by and subject to requirements of a regulatory framework. The collection, use, retention, or dissemination of data shall not be used to violate the Constitutional rights of any person, or in any manner that would discriminate against any person based upon their ethnicity, race, gender, national origin, religion, sexual orientation, or gender identity.

C. All digitally recorded imagery (video, or still photography), or other data, obtained by SDPD UAS in response to a law enforcement operation that is NOT required as evidence for use in an ongoing investigation, or specifically retained for the purposes of contributing to future department training will be deleted. The UAS Sergeant or specified designee is the only person authorized to delete data imagery from UAS storage devices.

D. UAS personnel shall not edit, alter, erase, duplicate, copy, share, or otherwise distribute UAS data imagery in any manner without the UAS Sergeant's approval and in accordance with this Operation's Manual and Department Procedure 8.23.

E. Personally Identifiable Information (PII)

1. Files containing PII shall be retained in accordance with agency policy, but for no longer than 180 days unless retention of the information is determined to be necessary to an authorized mission of the agency.

2. To retain PII more than 180 days requires documentation stating the reason, estimated length of time the PII will be needed and supervisory approval.

3. PII that becomes digital media evidence and has evidentiary value shall be handled and retained as digital media evidence. See Section Six of this Operations Manual.

9.4 PRIVACY and C.R.C.L. TRAINING

A. All UAS Operators for SDPD will be trained on Privacy Laws, Civil Rights, Civil Liberties, the 4th Amendment, and portions of the 1st Amendment related to UAS operations by a government agency.

B. The majority of this training will be presented in the UAS Training Academy Curriculum under the following training modules.

1. UAS Training Module 201 - Privacy, Civil Rights, and the 4th Amendment.
2. UAS Training Module 202 – UAS Department Procedure and Operations Manual.
3. UAS Training Module 203 – Evidence Retention and Documentation.

C. UAS Training Module 201 – Privacy, Civil Rights, and the 4th Amendment is a 4 hour training course which thoroughly educates UAS operators on the background history, theory, fundamentals, case law, and current trends of the 4th Amendment, Reasonable Expectation of Privacy, Civil Rights/Civil Liberties, and other aspects of related concepts specifically focused on governmental utilization of Unmanned Aircraft Systems to support Law Enforcement Operations.

D. Items presented and discussed in Module 201 include but are not limited to:

1. Duke Law Journal Vol. 64:1129 – Drones and the Fourth Amendment: Redefining Expectations of Privacy by Matthew R. Koerner
2. The 4th Amendment
3. Expectations of Privacy
4. Search and Seizure laws
5. Search Warrants
6. Curtilage
7. Exigency and Probable Cause
8. Definitions and Examples for “Open Fields”, “Overflights”, “Windows”, “Doors”, “Fences”, “Plain View”, and “Open Access Area”
9. Sensory Aids
10. Abandoned Property
11. Lawful Access
12. Warrantless, Consent, and Probation/Parole Searches

13. 4th Amendment and Privacy related to Manned LE Aircraft
14. UAS and Sensor Technology capabilities and limitations
15. SDPD Department Procedure 1.49 BWC – Portions
16. Practical UAS Operations
17. Lawful Demonstrations and portions of the 1st Amendment and right to peaceable assemble
18. Team Scenario Discussions and Tabletop Exercises
19. Accountability and Transparency

E. Case Law events that are studied in Module 201 include but are not limited to:

1. U.S. v. Causby – 1946
2. Califonia v. Ciraolo – 1986
3. Dow Chemical v. U.S. – 1986
4. Florida v. Riley – 1989
5. Kyllo v. U.S. – 2001
6. Katz v. U.S. - 1967
7. U.S. v. Jones – 2012
8. Florida v. Jarnies – 2013
9. Bond v. U.S. - 2000

F. The training module shall be taught annually to all operators. The module will be reviewed and updated annually to incorporate new and changing case law and related trends and procedures.

9.5 PUBLIC NOTIFICATIONS OF OPERATIONS

A. A Notification to Airman "NOTAM" or "DROTAM" will be issued prior to conducting UAS operations.

B. NOTAMS will be filed through an FAA authorized flight service station or online process. When filed the SDPD responsible party will provide the name of the agency, contact information, location of operation, altitude, operating area, time, and expected duration.

C. This NOTAM will be posted by the FAA and is easily accessible to the general public.

D. During SDPD UAS (non-training) operations, the RPIC will announce to dispatch when they are deploying an Unmanned Aircraft and when they have completed operations.

E. Due to the immediacy of some emergency Law Enforcement Operations, the NOTAM notification may be delayed or excluded if the issuance of a NOTAM may endanger the safety of persons on the ground. If this occurs, the RPIC or designated responsible party must be prepared to provide justification for the delay or exclusion and document these actions and justifications in the incident ARJIS-9.

9.6 PRIVACY INCIDENT REPORTING AND REDRESS

A. All crewmembers associated with a UAS mission in which there has been an incident involving a breach of privacy must report the incident to the UAS Sergeant.

B. The UAS Sergeant will complete the following tasks:

1. Notify the Operational Support Lieutenant and Captain of the incident.

2. Attempt to contact and provide notification to the individual(s) affected as well as provide an explanation of SDPD UAS Privacy, Civil Rights, and Civil Liberties policies and procedures.

3. Document the privacy breach incident in a separate ARJIS-9 detailing the actions and information relevant to the incident and any outcomes, as they may be required for an investigation of the incident.

4. If the incident is suspected of causing a complaint, the UAS Sergeant will contact SDPD Internal Affairs and inform them of the incident.

5. In the event a member of the public requests redress from the City, the residents will additionally be referred to the City Risk Management Department, Public Liability Division. The resident(s) may complete a "Claim Against the City of San Diego" form to open a claim and/or contact the Risk Management Department at (619) 236-6670. The claim will be reviewed and handled in accordance with processes for all other types of claims against the city.

9.7 MAINTENANCE AND REFERENCES

A. This document must be reviewed at least annually and updated as appropriate.

B. The UAS Sergeant must conduct an annual review of UAS operations to verify compliance with stated privacy policies, procedures, and practices.

C. Annual reviews of this operations manual shall include, but is not limited to federal, state, local laws, and regulations, as well as the following:

1. Department of Homeland Security Privacy Office, Handbook for Safeguarding PII.

2. 18 U.S. Code §2510, 2701, 3121, 1367, Electronic Communications Privacy Act of 1986.

3. California Constitution Article 1, Declaration of Rights.

4. California Civil Code §1708.8, Physical and Constructive Invasions of Privacy.

5. California Civil Code §1798.18, Information Practices Act of 1977.

6. California Government Code §6250, California Public Records Act.

7. California Government Code §34090, Government of Cities.

8. San Diego Municipal Code §22.26, Procedures Governing the Management of City Records.

9. San Diego Municipal Code 55.54, Unmanned Aircraft Systems.

10. City of San Diego Administrative Regulation 85.10, Records Management, Retention and Disposition.

11. City of San Diego Administrative Regulation 95.20, Public Records Act Requests and Civil Subpoenas, Procedures for Furnishing Documents and Recovering Costs.