

**SACRAMENTO POLICE DEPARTMENT
AIR OPERATIONS MANUAL**



RM 450.01

PURPOSE

This policy provides guidance for managing the Air Operations program.

POLICY

An Air Operations Manual is required by the Airborne Public Safety Association (APSA) for all air operators. This manual meets this requirement, and is a consolidation of information, procedures, rules, guidelines, and policy for the Sacramento Police Department's Air Operations Unit (AOU). It complements existing Department Orders, manufacturer's Aircraft Flight Manuals (AFM), Federal Aviation Regulations (FAR) and other pertinent information relating to flight operations.

While it provides guidance and best possible operating practices under most conditions, it is not a substitute for sound judgment. Crewmembers have the authority to deviate from these guidelines to the extent necessary to address emergencies, adverse weather, terrain, extenuating circumstances, or to ensure the safe operation of the aircraft.

Nothing in this manual is intended to diminish the decision-making authority of the Pilot in Command (PIC) as it relates to the safe operation of the aircraft, or to act in the best interest of the assigned personnel.

In the development of these policies and procedures, consideration has been given in the following priority:

1. Safety
2. Mission
3. Efficiency

Compliance with this manual is intended to provide the necessary level of organizational structure and discipline to maximize safety and standardization.

GENERAL PROCEDURES

The mission of the AOU is to provide safe and efficient aerial support for ground-based law enforcement operations within the City of Sacramento and the surrounding region. The AOU safely and cooperatively works with our regional public safety aviation unit partners. The AOU has a cooperative flight schedule with the Sacramento County Sheriff's Air Unit to maximize aerial coverage for the City and County of Sacramento.

- A. The unique observation platform provided by an aircraft is a force multiplier and benefits the general law enforcement mission by providing:
 - 1. Quicker response times to crimes in progress, which can increase suspect apprehension rates and protect citizens.
 - 2. An instant perimeter upon arrival, as officers in an aircraft can observe all sides of a building or a block.
 - 3. A command presence that provides the opportunity to de-escalate situations by encouraging suspects to surrender rather than continue their criminal acts, fight or flee.
 - 4. Observations and information to officers prior to their arrival to a call for service in order to increase safety to officers and citizens.
 - 5. A resource to allow officers in a vehicle pursuit to follow from afar (surveillance mode) when the suspect's driving is reckless and erratic.
- B. Department aircraft will be used as direct airborne support of various facets of law enforcement operations. The following are some of the support the department aircraft can be utilized for:
 - 1. Patrol Operations
 - a. Area searches
 - (1) Missing persons- assist in locating missing persons by aerial searches, PA announcements, using low light thermal imaging camera systems, etc.
 - b. Vehicle and foot pursuits
 - (1) Allows for increased following distance between officers and suspect(s).
 - (2) Aircrews can broadcast pertinent pursuit information to officers on the ground such as, location, direction of travel, traffic and roadway conditions, cross traffic, and other observed hazards.
 - (3) Surveillance mode is utilized as an observation platform of a suspect vehicle allowing officers to maintain a loose containment until the suspect stops and abandons the motor vehicle. With Watch Commander approval, the AOU can maintain surveillance mode even if a pursuit is terminated.
 - (4) During foot pursuits, the AOU can direct ground units, establish containment perimeters make PA announcements and conduct aerial searches.
 - c. Observation and intelligence operations
 - (1) protests
 - (2) search warrants
 - (3) surveillance on wanted subjects
 - d. General calls for service- any calls for service where the AOU can either handle the call for service by searching an area or provide support to ground units through aerial observations (e.g. hit and run vehicle accidents, reckless drivers, suspicious

subjects or vehicles, etc.)

2. Special Project Flights

a. Community events

- (1) air shows
- (2) off-site landings
- (3) open house events for the City
- (4) public displays and community gatherings.
- (5) school functions

a) Note: If the event involves landing at, or within 1000' of a K-12 grade school, the California Department of Transportation (DOT) Helicopter Landing Authorization (HLA) must have been obtained. The assigned PIC is responsible for ensuring the application for HLA authorization and site safety survey at the school has been completed and obtained. Personnel conducting the site survey must have received the appropriate training from the DOT in order to be qualified to complete the HLA application.

b. Homeland Security Critical Infrastructure Checks

c. Aerial photos

- (1) pre-operation planning
- (2) investigation
- (3) post-incident scene documentation
- (4) other photos as needed by the department with approval by the AOU Sergeant

d. Formation Flights -a formation flight is any flight involving two or more aircraft of the same class flying in common direction within 150' or less.

- (1) Must be approved by the AOU Lieutenant.
- (2) Must be coordinated on the ground prior to the flight with all pilots involved in attendance. The PIC of the flight shall be identified as the flight leader.
- (3) Flight leader shall be responsible for conducting pre-flight briefing during which assignments and positions for each aircraft are assigned.
- (4) All aircraft involved in the formation flights shall be tuned to a common frequency for the entirety of the formation flight.
- (5) All PIC's shall be responsible for maintaining visual contact with other aircraft in the formation and to maintain proper separation and intervals.
- (6) A safety pilot or observer capable of monitoring the aircraft instruments and aircraft position and generally assisting the PIC is highly recommended for each aircraft involved in a formation flight. In all cases, the flight leader shall be accompanied with a safety pilot/observer.

C. In the event of simultaneous requests for air support, the aircrew will prioritize response based upon the following criteria:

1. ability of the crew to safely complete the requested mission
2. protection of life
3. protection of property
4. weather conditions
5. proximity to the call

D. Outside agency requests for air support beyond the Sacramento County and West Sacramento region shall be approved by the on duty watch commander.

E. Fly-A-Longs

1. Must be approved in advance by the AOU Sergeant, AOU Lieutenant or Metro Division Captain.
2. On-duty SPD employees may fly in SPD aircraft if there is an operational or training purpose.
3. All non-department personnel must complete the Sacramento Police Ride Along Program Application (SPD 579).
4. All persons flying in department aircraft must be given a safety briefing to include information on aircraft hazards, ingress/egrees, door operation, use of seat belts, use of headsets, and emergency consideration.

RESPONSIBILITIES

A. Air Operations Team Positions

1. Commander – The Air Operations Unit Lieutenant (AOUL) is the commanding officer of the AOU and is responsible for the overall management and safe operation of the unit. It is recommended that the AOUL attend an Aviation Unit Manager’s Course within one year of assignment.
2. Sergeant - The Air Operations Unit Sergeant (AOUS) is the supervisor responsible for the day-to-day operation of the AOU. Duties of the AOUS include, but are not limited to, the following:
 - a) Supervising all Air Operations Unit personnel, equipment, and maintenance.
 - b) Managing all flight operations.
 - c) Ensuring the safe operation of Department aircraft.
 - d) Coordinating with maintenance personnel regarding scheduled and unscheduled aircraft maintenance.
 - e) Prioritizing and approving training for personnel as required for flight standards, flight currency, and crewmember proficiency.
 - f) Acting as the Air Operations Unit liaison with other law enforcement agencies.
 - g) Reviewing and authorizing requests for special flight operations and/or demonstrations.
 - h) Monitoring flight crew scheduling.
 - i) Conducting flight missions as required.
 - j) The AOUS shall attend an Aviation Unit Manager’s Course that includes information on aviation safety, human factors, personnel selection, aviation maintenance issues, pilot training requirements, and the legal responsibilities of operating public use aircraft within one year of appointment. As of publication of this manual, APSA and the Helicopter Association International (HAI) both offer a Unit Managers’ Course that address these objectives.
3. Pilot-in-Command - The PIC is ultimately responsible for the safe and effective operation of Department aircraft in accordance with FARs and AOU policy. A mission qualified AOU PIC must:
 - a) Complete the Tactical Flight Officer (TFO) training program.
 - b) Possess an FAA commercial pilot certificate for the category and class of aircraft to be operated.
 - c) Possess a valid FAA Second Class Airman’s Medical Certificate.

- d) Complete the AOU mission training program.
 - e) Have 250 hours PIC flight time in each category of aircraft in which designated PIC.
 - f) Have 50 hours of cross-country flight time and 25 hours of night flight as PIC in any aircraft.
 - g) All pilots shall maintain FAA pilot certificate currency per the FARs.
 - h) Successfully complete any additional proficiency checks, emergency procedure training, or mission training that may be required at the discretion of the AOUS or the City of Sacramento's insurance carrier. Emergency Procedures training should be conducted from the Bell Training Academy, or comparable vendor on yearly basis.
 - i) Obtain and maintain a California DMV Class B driver's license with Hazardous Materials, Tanker, and Air Brake endorsements.
4. Tactical Flight Officer (TFO) – The TFO works in conjunction with the PIC to direct and coordinate the law enforcement activities of the air unit in support of Department missions. TFO duties and requirements include, but are not limited to, the following:
- a) Prioritizing police radio calls and assisting with navigating the PIC to those calls.
 - b) Coordinating ground unit response.
 - c) Establishing suspect and scene containment.
 - d) Conducting searches for suspects or missing persons.
 - e) Operating specialized equipment such as day/night camera systems, moving map system, video downlink system, communication equipment, Lo-Jack, search light, and the public address system.
 - f) Coordinating vehicle and foot pursuits.
 - g) Coordinating outside agencies' resources.
 - h) Providing flight support to the PIC.
 - i) Completing required flight logs, statistics, and reports.
 - j) Cleaning, maintaining and re-fueling the aircraft.
 - k) Possess a thorough working knowledge of patrol policies, procedures and major incident response tactics.
 - l) Possess a thorough operational geographic familiarity with the City of Sacramento and the surrounding region.
 - m) Complete the AOU TFO training program.
 - n) Obtain and maintain an FAA Second Class Airman's Medical Certificate.
 - o) Obtain and maintain a California DMV Class B driver's license with Hazardous Materials, Tanker, and Air Brake endorsements.
 - p) Successfully complete no fewer than ten (10) hours of basic helicopter flight instruction and be able to land the helicopter safely in the event of pilot incapacitation.
 - q) TFOs will attend a formal TFO training course within one year of qualification. As of publication of this manual, acceptable TFO training courses are offered by APSA and the Los Angeles Police Department Air Operations Unit.
 - r) TFO qualifications may be waived by the AOUL for 90 days in order to provide appropriate time for a candidate to gain compliance. Failure to perform the required duties within 90 days may result in removal from the AOU.
5. Certified Flight Instructor (CFI) – A CFI is a pilot who possesses a certificate issued by the FAA authorizing flight instruction in a specific category, class, and type (if necessary) of aircraft. Recertification requires 16 hours of continuing education every 24 months. In the

absence of a CFI within the unit, these services may be contracted with an outside vendor. The CFI is responsible for duties including, but not limited to, the following:

- a) Initial supplemental pilot training of prospective pilots.
 - b) Phase checks during the course of pilot training.
 - c) TFO basic helicopter flight instruction.
 - d) Recurrent training of all pilots assigned to the AOU, regardless of rank.
 - e) Specialized training of pilots for emergency procedures, police mission training and night vision goggle (NVG) operations.
 - f) FAA Instrument and commercial certificate training as directed by the AOUS.
6. Aviation Safety Officer / Industrial Safety Officer (Safety Officers)– The Safety Officers perform collateral duties assigned by the AOUL or AOUS. Although safety is the responsibility of each and every member of the unit, the Safety Officers' duties include, but are not limited to, the following:
- a) Assisting the AOUS in the formation and implementation of safe operating procedures for the AOU.
 - b) Assisting in maintaining the Air Operations Safety and Mishap Response Guides.
 - c) Ensuring the fuel spill kit, personal protective equipment, industrial eye wash station, fire extinguishers, and hearing protection are stocked and in compliance with applicable safety standards, including annual training requirements.
 - d) Providing technical guidance regarding safety in unit operations.
 - e) Evaluating and making recommendations regarding AOU safety equipment.
 - f) Acting as a liaison with FAA, National Transportation Safety Board (NTSB), and California Division of Aeronautics personnel regarding safety issues, as necessary.
 - g) Attending periodic training in the areas of aviation or industrial safety.
 - h) Disseminating current safety information to AOU personnel.
 - i) Ensuring compliance with the AOU Safety Management System (SMS).

B. Crew Resource Management

Crew Resource Management (CRM) is a standard practice for commercial pilots and commercial operations. CRM is based upon standardized procedures designed to improve safety by enhancing situational awareness, self-awareness, assertiveness, communication, and decision making in the flight environment. It is a multidisciplinary approach to reducing human errors, pilot workload, and aviation accidents. CRM aims to foster a climate and culture in which authority may be respectfully questioned upon recognizing a discrepancy between opinions on what should be happening and what is happening in regard to air operations safety. CRM is an integral part of all assessments, actions, and decisions made by a flight crew before, during, and after all phases of flight.

PERSONNEL POLICIES

- A. Medical Requirements: Pilots and TFOs who fail to obtain, or are unable to maintain, a valid second-class medical certificate must be removed from flight status until the situation is resolved. Failure of any required medical examination shall be immediately reported to the AOUS. Failure to obtain or maintain a valid second-class medical certificate by a pilot or TFO may result in removal from the AOU.
 1. Physical Condition Reporting – All illnesses and injuries affecting a flight crewmember's FAA medical status shall be reported as soon as possible to the AOUS. If there is any question as to whether a pilot's medical status is affected, the AOUS should consult with an

FAA Aviation Medical Examiner (AME) to determine whether the pilot is still capable of flying department aircraft.

2. Blood Donation – No flight crew member may give blood within 72 hours of a scheduled flight. Flight crew members should not give blood until checking for scheduling conflicts.
 3. Medication – All flight crew members should be aware of the side effects of any medication or prescription drugs with respect to their ability to function normally under all flight conditions. When uncertainty exists, crew members should consult with an FAA AME to determine potential side effects prior to operating any aircraft.
 4. If the AOUS or AOUL has any question as to a Pilot or TFO's ability to safely perform flight duties, the officer will be removed from flight duties until a written clearance from an FAA AME is received.
 5. Crew members shall not fly within 24 hours following scuba diving or compressed air dives. Decompression sickness symptoms occurring during or after diving imposes a ban on all flight duties until cleared for duty by an FAA AME.
 6. No flight crew member shall operate or otherwise participate in a flight after consuming any alcoholic beverage, or any other intoxicant, within 8 hours of the flight.
 7. No flight crew member shall operate or otherwise participate in a flight while under the influence of any alcohol, drugs or any other intoxicant, that may hinder the crew members ability to effectively operate or participate in the flight. This includes any over-the-counter or prescription drugs that have the potential to hinder the crew member's ability to effectively operate or participate in the flight. All over-the-counter or prescription drugs taken must be verified on the FAA Accepted Medications Master List.
- B. Fatigue: Crew members should ensure they report for their duty assignments well rested. Whenever a crew member perceives their performance may be affected by fatigue, they shall remove themselves from flight status and immediately notify the AOUS.

OPERATIONAL POLICIES

- A. Personal Protective Equipment: All AOU crew members shall wear personal protective equipment designed to protect against injuries associated with fire and / or major head trauma. The following safety equipment shall be worn by all aircrew members during helicopter flight operations:
1. Fire-resistant flight suit made from "Nomex" or similar material. Clothing made of nylon should never be worn as an outer or under garment.
 2. A helicopter flight helmet.
 3. Leather laced boots or non-leather boots that have been approved for use by the United States Armed Forces for helicopter aircrews.
 4. Aircrews, while on a departmental law enforcement mission, shall have available their department-approved duty handgun, unless there are considerations dictating otherwise and they have obtained AOUS approval.
- B. Smoking Policy: Smoking of tobacco products inside the aircraft hangar or within 50 feet of fuel truck or aircraft is prohibited.
- C. Occupant Restraint Devices: Each person on board an aircraft shall occupy an approved seat and will wear a seat belt or approved restraint device.
- D. Aircraft Airworthiness: The PIC is solely responsible for determining whether the aircraft is in condition for safe and legal flight per FAA regulations. The PIC shall discontinue the flight when they become aware of any condition that affect the aircraft's airworthiness. PICs shall conduct a manufacturer's recommended pre-flight inspection, in accordance with the appropriate aircraft

operator's manual, prior to the first flight of the day for each aircraft flown. This shall include a thorough review of the aircraft maintenance discrepancies noted in the aircraft log book. PICs shall determine if required maintenance inspections have been completed. If inspections are overdue or mechanical discrepancies have not been corrected, the AOUS shall be informed immediately.

- E. Preparation for Flight: Each PIC shall perform a thorough pre-flight inspection of the aircraft prior to the first flight of the day and as needed throughout their shift in accordance with the applicable flight manual. Before beginning a flight, complete a crew Flight Risk Assessment Tool (FRAT) and become familiar with all available information concerning the flight. The information must include:
 - 1. Current weather reports.
 - 2. Forecasted weather reports.
 - 3. Notice to Airmen (NOTAMs) regarding hazards in the area or route of flight.
 - 4. Temporary Flight Restrictions (TFRs) in the area or route of flight.
 - 5. Weight and balance calculations.
 - 6. Aircraft performance calculations.
 - 7. Fuel Requirements.
 - 8. Alternate Airports.
 - 9. Use of the appropriate check list necessary to start each aircraft prior to flight as well as shut down at the end of flight. The PIC shall conduct a thorough post-flight inspection of the aircraft at the completion of every flight.
- F. Aeronautical Charts: The AOUS will ensure that each pilot has access to a current and appropriate set of aeronautical charts, instrument approach procedures charts, and supplemental information related to flight planning and operations. Charts can be standard FAA Sectional Charts or digital charts. Prior to each flight, the PIC shall ensure the currency of the charts to be used. A current set of instrument approach procedure charts for the operational area will be carried onboard fixed wing aircraft in case of inadvertent flight into Instrument Meteorological Conditions (IMC). Crews relying on digital charts shall ensure their electronic devices have sufficient charge prior to flight.
- G. Sterile Cockpit Procedures: PICs shall ensure that the interior and the exterior of their assigned aircraft is maintained in a clean and uncluttered manner.
- H. In Flight Procedures: All crew members will refrain from non-essential duties and conversations during critical phases of flight. The critical phases of flight are defined as follows:
 - 1. Taxi
 - 2. Takeoff
 - 3. Power checks
 - 4. Final approach
 - 5. Landing
 - 6. Any other situation as determined by crew members
- I. Chemical Agent Policy: Possession of chemical agents will not be allowed in Department aircraft.
- J. Handoff Procedures: The handoff of a mission to another manned airborne law enforcement unit or unmanned aerial systems (UAS) requires a high degree of situational awareness. Safety is paramount while conveying or acquiring the primary mission responsibilities. Radio communication must be established between the primary aircraft and the relief aircraft prior to arrival. The aircrews shall minimally exchange the following information prior to conducting the handoff:
 - 1. Location of incident.
 - 2. Type of incident.

3. Whether the incident is stationary or moving.
 4. Suspect direction of travel.
 5. Altitude of the on-scene aircraft.
 6. Altitude assignment of the relief aircraft.
 7. Altimeter setting to be used by involved aircraft.
 8. Arrival vector / direction of relief aircraft.
 9. Departure vector / direction of the on-scene aircraft.
 10. Announcement of arrival / departure.
 11. Once the relief aircraft is in a position to assume control of the mission, the relieved asset can turn away and depart the area. The arriving aircraft should initially plan to arrive on station with approximately 500' feet vertical separation from the primary aircraft. In the event more than one aircraft will be assigned to the call, the PICs shall agree on altitude assignments and mission responsibilities. PICs shall be responsible for maintaining safe vertical and horizontal separation at all times.
 12. UAS and AOU pilots shall communicate location and altitudes with each other when working the same call for service or same geographic area.
- K. Weather Minimums: AOU helicopters are to operate under FAA visual flight rules (VFR), generally 3 statute miles visibility or more and a cloud ceiling of 1000 feet or more.
1. Intentional helicopter flight into instrument meteorological conditions (IMC) is prohibited.
 2. Except in an emergency, VFR "over the top" of IMC conditions is not an authorized procedure for helicopter operations.
 3. It is incumbent upon the PIC to closely monitor weather conditions at the point of departure, area of operation, and destination to avoid inadvertent IMC conditions.
 4. Any flight crew member may initiate the cancellation of the flight if they feel the flight conditions are not safe.
 5. The flight crew should not feel compelled to return the helicopter to its home base if the weather at that home airport is poor or below VFR minimums.
 6. A Special VFR clearance may be obtained from the controlling Air Traffic Control (ATC) facility at the discretion of the PIC with the concurrence of all flight crew members.
- L. AOU fixed-wing aircraft operate as a VFR program, but are authorized for transition through IMC conditions. Observation operations require a minimum of 3 statute miles visibility or more and a ceiling of 4000 feet or more.
1. All instrument flight rules (IFR) flights require a flight plan and the appropriate ATC clearance.
 2. If a significant segment of an assigned mission will be flown in IMC, or if the flight involves IMC within the Class B airspace, two pilots should be assigned.
 3. In determining whether an instrument approach can be safely flown to the published minimums, or an alternate airport should be utilized, pilots should consider:
 - a) Their flight experience.
 - b) IFR currency/proficiency.
 - c) Familiarity with the airport.
 - d). Time of day.
 - e) Whether it is a single pilot or dual pilot operation.
 4. Pilots should avoid departing from an airport when the weather conditions are below the published minimums precluding an immediate return and landing in the event of an emergency.

- M. Minimum Patrol Altitudes: The recommended minimum patrol altitude for helicopter flight shall be 500 feet Above Ground Level (AGL) for daytime operations and 700 feet AGL for operations during nighttime in order to allow safe autorotation during an emergency. When circumstances require a lower altitude, the pilot will use their discretion to determine the safe operating altitude for that particular area based upon terrain, weather conditions, aircraft performance, pilot experience, and risk to persons or property on the surface.
- N. Overwater Operations: When practical, all overwater operations should be conducted at a speed and altitude capable of allowing the aircraft to glide to a landing zone in an emergency. If an aircrew must transit a large waterway, the crew should consider higher altitudes or deviation from a direct route across the water to remain within gliding distance of land. For planned flights over bodies of water outside of gliding distance to land, each crew member/passenger shall have a personal floatation device (PFD) available to them.
- O. Fly Neighborly Policy: The AOU has adopted the "Fly Neighborly Program," emphasizing noise abatement whenever possible. During flight over residential areas, if feasible, pilots will practice "fly neighborly" techniques in an effort to minimize the noise signature of the helicopters. Examples of "fly neighborly" techniques include flying at recommended patrol altitudes, flying in trim whenever possible, utilizing low power settings while on approach, and using best rate of climb airspeed and power settings while on departure. This policy is not intended to alter patrol procedures; however, an awareness of the noise generated by helicopters and attempts to diminish the irritation caused by flights is consistent with the department's proactive service-oriented policing philosophy.
- P. Fuel Requirements for Flight: Helicopter flights will plan for fuel reserves in accordance with FARs and should land with a minimum of 20 minutes of fuel remaining. Airplane flights will also plan for fuel reserves in accordance with FARs and should land as follows:
1. Daytime VFR: Land with a minimum of 30 minutes of fuel remaining.
 2. Night VFR: Land with a minimum of 45 minutes of fuel remaining.
 3. IFR flights: Land with a minimum of 45 minutes of fuel remaining.
- Q. Crew Rest Policy: Crew members should be limited to 14 hours of duty time and 6 hours of helicopter flight time or 8 hours of airplane flight time per twenty-four (24) hour period. The twenty-four-hour period starts from the time the crew member started work, or in the event of a call out, from the time the call was received. A new twenty-four-hour period begins after an air crew member has eight consecutive hours off duty. Crew rest standards are advisory in nature and are in accordance with APSA recommendations. Every effort should be made to adhere to the limitations whenever possible; however, the AOUS or AOUL may authorize additional flight time after consultation with crew members.
- R. Aircraft Refueling Procedures: Refueling an aircraft is an inherently dangerous operation. An appropriately rated fire extinguisher shall be readily available during all fueling operations. Unless a critical need exists, aircraft should not be refueled with the engine running or rotor blades still turning, commonly referred to as "hot or rapid refueling." If a specific need exists requiring "hot refueling," the following shall be adhered to:
1. The aircraft shall only be occupied by the PIC who shall reduce the engine to idle and remain at the flight controls, at all times, during the refueling operation.
 2. A designated and trained ground support person shall conduct the grounding and refueling of the helicopter.
 3. In the event of a fire or other emergency during rapid refueling operations, the PIC shall perform an emergency shutdown of the aircraft and immediately disembark.

4. Suggested refueling guidelines in FAA Advisory Circular 91-32B section 13.
 5. Airplanes shall not be "hot or rapid refueled."
- S. PIC / TFO Log Entries: Completion of accurate activity and flight logs at the end of each shift are essential for flight operations management. The statistical information obtained from activity logs is necessary for monthly / annual reports documenting the performance of the AOU. This data supports the unit in grant applications or obtaining funds necessary to maintain the unit.
1. The TFO is responsible for completing the daily flight activity statistics in the AOU statistics program prior to end of watch. Activity statistics shall be generated for all patrol flights, requests for service, after hour callouts and training.
 2. Flight log information is necessary for scheduling maintenance and tracking discrepancies. The PIC is responsible for completing the aircraft flight logs indicating the number of flight hours and any maintenance discrepancies discovered or experienced.
- T. Reports: Supplemental reports will be written, when necessary, per department general orders. The TFO is responsible for determining if a report is required per general orders and for compliance with the prescribed department timelines for completion and submission of necessary reports and supplements.
- U. Audio Video Media and Media Review: Aircraft that are routinely used for patrol or observation operations may be equipped with gyro-stabilized camera systems capable of operating in daylight, lowlight, and thermal imaging modes. Whenever feasible and safe, aircrews shall attempt to record critical incidents or crimes in progress where video could prove beneficial for criminal prosecution, documentation, or training. It is understood that TFO tasks on a call may preclude them from safely using the camera system to record during an incident. If immediate activation of the video recording device is not feasible due to safety concerns, the TFO should activate the recorder as soon as it is safe to do so. Any release of video will comply with all department general orders and requires an approved SPD 524 form.
- V. Aircraft Security Policy: Whenever an aircraft must be left unattended, the PIC is responsible for ensuring that the aircraft is left in a secure manner. Aircraft parked on the aviation ramp at the AOU facility can be considered secure as long as there is no public access to the aviation ramp. Aircraft parked at most large airports can be assumed to be secure; however, each airport should be evaluated individually for its level of security. When possible, the aircraft should be locked to prevent theft or damage of equipment; otherwise, valuable items should be removed from the aircraft. Aircraft left at any other location must be continuously monitored by members of the AOU, or other approved personnel. Crew members shall immediately report to the AOUS any indication of tampering, vandalism, unauthorized entry, or equipment theft.
- W. AOU Facility Security Policy:
1. All personnel are responsible for facility security. Gates accessing the aviation ramp shall be closed and locked at all times.
 2. The security alarm system shall be armed when the facility is unoccupied. If the alarm is not functional, the crew member will notify the AOUS or AOUL.
 3. Any unrecognized individuals encountered near the hangar or on the aviation ramp shall be politely addressed to determine their purpose. Visitors at the facility must be accompanied by an AOU crew member.

X. Aircraft Accidents or Incidents

1. Aircraft accidents and incidents are defined in 49 CFR 830.2 (Code of Federal Regulations).
2. Aircraft accidents are occurrences associated with the operation of an aircraft that take place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.
3. An aircraft incident is an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.
4. Substantial damage is damage or failure which adversely affects the structural strength, performance, of flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected components.
5. Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered substantial damage.
6. Aircraft accidents and incidents shall be immediately reported through the AOU chain of command following the aircraft accident/incident response guidelines. The AOU commander or designee will notify the nearest local FAA district office or the NTSB in accordance with 49 CFR 830.05.
7. Pilots involved in accidents or incidents shall be removed from PIC flight status pending a review. Pilots may be required to complete a PIC qualification check ride prior to returning to PIC flight status.

Y. Deviation / Safety Event Report: An Air Operations Deviation / Safety Event Report (SER) shall be used to record flight activity that was outside the scope of the unit's standard operating procedures. The SER shall also be used to document safety related events. The AOUL shall be immediately notified of any such event, and the PIC shall complete a SER form prior to end of watch. Examples of this type of activity include, but are not limited to

1. In-flight emergencies or anomalies
2. System failures
3. In-flight activation of a warning system
4. Exceedances
5. Hard landings
6. Maintenance margin deviations
7. Flight beyond minimum required fuel
8. Flight requiring a special VFR clearance
9. Inadvertent IMC
10. Bird strike

Flight Operations

- A. Helicopter Out of Area Flights: Other than when responding to calls for service authorized by the on-duty watch commander, department helicopters are prohibited from leaving the greater Sacramento Metropolitan Area except during the following circumstances, and after obtaining approval from the AOUS or AOUL:
1. Response to a mutual aid request.
 2. Training flights.
 3. The aircraft is being positioned for maintenance purposes.

4. Other flights as deemed necessary by the AOUS or AOUL not listed above.
- B. Airplane Out of Area Flights: The airplane local operating area is the Sacramento Metropolitan area. The AOUS shall consider, and may require, two qualified pilots for planned flights into class B airspace. Upon arrival at a destination or return to the base airport, the crew will notify the AOUS and advise that they have safely arrived. Prior to all flights outside this area, the PIC will obtain:
1. Authorization from the AOUS or AOUL.
 2. Current route and destination charts.
 3. Present and forecast weather information along the projected route.
 4. Flight following/ATC Radar Advisories or file a flight plan (IFR or VFR).
- C. Aircraft Mishap Response Guide: The Air Unit Aircraft Mishap Response Guide shall be maintained by the AOUS. The AOUS shall periodically review emergency contact information and ensure the manual complies with current mishap response directives.

SPECIAL OPERATIONS

- A. Night Vision Goggles: Night Vision Goggles (NVGs) are available to supplement the vision of helicopter crew members during night flight operations. NVGs will not be used by the PIC of airplane operations. PICs utilizing NVGs for helicopter flight operations will:
1. Receive training in the function, use, and proper care of NVGs by an NVG-trained CFI.
 2. Successfully complete an annual NVG check ride with an NVG-trained CFI.
 3. Maintain NVG currency by conducting three (3) NVG landings and takeoffs within the previous 60 days.
- B. Off-Site Landings: Department aircraft shall be landed only at approved airports and heliports, with the following exceptions:
1. Landings in Urban and Rural Areas
 - a) Pre-planned off-site landings in urban or rural environments for public demonstrations, displays or training are permitted with an appropriate site survey or aerial reconnaissance, HLA if required, and approval of the AOUS or AOUL.
 - b) Spontaneous requests for landings in the urban environment for the purpose of facilitating the movement of specialized equipment or personnel may occur during an aircrew's shift. These requests must be approved by the on-duty watch commander, who will assume responsibility for securing a safe landing zone.
 - c) Emergency off-site landings in rural and urban environments require watch commander and AOUL notification and are permitted if an immediate life-threatening situation exists, where non-intervention of the flight crew would likely result in great bodily injury or the death or where an emergency response is required and ground officers are unable to respond in an appropriate amount of time.
 2. Specialty Team and / or Equipment Deployment
 - a) Deployment of specially trained personnel, such as SWAT or K9 officers, to remote areas or roof top heliports may be required during tactical operations and / or critical incidents. Tactical deployments shall only be conducted with personnel who have been specifically trained in off-site operations and insertions. Qualified officers will be required to demonstrate proficiency on an annual basis.
 - b) The PIC shall be responsible for computing aircraft performance, as well as weight and balance information, prior to any specialty team or equipment deployments.

AOU helicopters are light observation helicopters generally incapable of carrying more than one passenger at a time in addition to the flight crew.

TRAINING STANDARDS

A. Crew Member Training

1. The AOU requires all personnel to complete training as a TFO prior to operating as a crew member during missions. Pilots shall be trained to FAA Commercial standards and must complete additional mission training.
2. An AOU Training Manual has been created and is stored electronically in the Department's Metro Drive.

B. The AOU shall, for each person required to receive initial and recurrent training, establish and maintain a record of all training received. Training records shall be retained a minimum of five years and include the following information:

1. Copy of current pilot certificate.
2. Copy of the current medical certificate.
3. Training records indicating successful completion and date of initial qualification training as PIC and/or TFO.
4. Evaluation form and/or checklist used to conduct standardization flight training.
5. Documentation related to remedial or supplemental training.
6. Make, model, and type of aircraft or flight training equipment used to conduct the training.
7. Accrued flight time totals.

SAFETY STANDARDS

A. Safety Orientation

1. The AOU intends to provide all employees with a safe and healthy working environment and supports all requirements of law regarding safety and operational standards. It is the AOU's intention to eliminate or reduce injuries, damage to aircraft, and property damage.
2. All members of the AOU will at minimum receive training in the following safety areas:
 - a) Working around aircraft operated by the AOU.
 - b) Sterile cockpit procedures.
 - c) Fueling aircraft operated by the AOU, including the use of PPE during fueling, such as gloves, aprons, eye protection and hearing protection.
 - d) Operation of ground handling weels, helicopter "tugs", and airplane towbars used by the AOU.
 - e) Hazmat fuel spill kits.
 - f) Eye wash station.
 - g) Fire extinguishers.

B. Air Operations Safety Management System (SMS)

1. The overall approach to safety is beyond the scope of an operations manual. Therefore, an AOU Safety Management System will be maintained to outline the unit's philosophy of aviation safety management. The SMS will be made available to all unit personnel and will be stored electronically in the Department's Metro Drive.

MAINTENANCE STANDARDS

A. Outsourced Maintenance

1. The AOU outsources the maintenance of its aircraft. The maintenance provider(s) will maintain aircraft maintenance records and comply with applicable maintenance

standards in this section, as outlined in maintenance contracts and scope of work descriptions and the AOU SMS.

B. Certificated Aircraft Maintenance Standards

1. AOU certificated aircraft shall be maintained to standards set forth in 49 CFR Part 91 or higher in accordance with approved manufacturers' requirements.

C. Non-Certificated Military Surplus Aircraft

1. Military surplus aircraft shall be maintained in accordance with appropriate United States Armed Forces technical manuals.

D. Post-Maintenance Safety Checks

1. The AOU shall require the maintenance provider to provide post-maintenance safety checks of all work performed. Work performed on safety-sensitive equipment such as engines, flight controls, or major components will be checked by a certified mechanic in addition to the mechanic performing the work prior to return to service. The PIC will conduct an additional safety check of the aircraft using a checklist prior to acceptance and flight. The PIC should refuse acceptance of the aircraft if any flight safety concerns are noted and immediately notify the AOUS.

E. Post-Maintenance Operational Check Flights

1. Post maintenance operational check flights are required when maintenance procedures or modifications have been made that could affect the flight characteristics of the aircraft. All post-maintenance operational check flights shall be conducted by an appropriately trained pilot. The pilot will conduct a thorough inspection of the work performed on the aircraft in conjunction with the mechanics prior to completing prescribed flight checks or maneuvers. The PIC should refuse acceptance of the aircraft if any flight safety concerns are noted and immediately notify the AOUS prior to flying the aircraft. Under no circumstances shall non-essential persons to the operational flight check be carried.

Glossary of Terms and Key Phrases

AGL	Above Ground Level
Aircraft Accident	An occurrence associated with the operation of an aircraft that takes place from the time a person boards the aircraft with the intention of flight in which any person suffers death or serious bodily injury, or the aircraft sustains substantial damage.
Aircraft Incident	Any occurrence other than an accident, associated with the operation of an aircraft, that affects or could affect the safety of operations.
Aircraft Mishap Response Manual	Aircraft Incident / Accident response protocol binder.
APSA	Airborne Public Safety Association.
AME	Aviation Medical Examiner (FAA designation).
ATC	Air Traffic Control
CFI	Certified Flight Instructor who is certified by the FAA to give flight instruction in the associated category and class of aircraft.
CRM	Crew Resource Management.
Cross Country	An airplane flight that includes a point of landing at least 50 nautical miles from the original point of departure, or a helicopter flight that includes a landing point at least 25 nautical miles from the point of departure.
DOT	Department of Transportation.
FAA	Federal Aviation Administration.
FAR	Federal Aviation Regulation.
Fly-By	Fly-By, or Fly-Over, shall mean the flight of an aircraft over a specific location for the purpose of obtaining information or to pay tribute.
Fixed Wing	An aircraft commonly referred to as an airplane.
FLIR	Forward Looking Infrared System.
FRAT	Flight Risk Assessment Tool
Helicopter	Rotorcraft capable of vertical take-off and landing.
HLA	Helicopter Landing Authorization (CA DOT).

Hot Refueling	Hot Refueling shall mean the refueling of an aircraft with an engine operating (running), electrical equipment on, or both an engine running and electrical equipment on.
IMC	Instrument Meteorological Conditions.
IFR	Instrument Flight Rules (FAA designation).
Nautical Mile	A unit of distance used in aviation and marine navigation equal to one minute of latitude. One nautical mile is equivalent to 1.15 statute miles.
Night Flight	Flight during the period beginning one hour after sunset and ending one hour before sunrise.
NVGs	Night vision goggles.
Off-Site Landing	Off-Site Landing shall mean any landing at a location other than an approved airport or heliport.
PIC	The Pilot-In-Command is the individual ultimately responsible for the safe and effective operation of the aircraft regardless of rank.
Post-Maintenance Operational Check Flight –	An operational check flight required upon completion of maintenance that could affect the flight characteristics of the aircraft. To be completed before an aircraft is returned to service.
Ride-A-long	Ride-along shall mean a passenger on the aircraft for the purpose of witnessing Department airborne law enforcement operations and who has no specific aircrew duties.
Rural Area	A rural environment is an area away from or outside the city or town limits. A rural area generally offers less hazards to off-site landings than an urban area.
SMS	Safety Management System.
Special VFR	Authorization from ATC to conduct departure and/or arrival in controlled airspace when reported weather observations are below the minimum required.
Statute Mile	A linear measurement equivalent to 5,280 feet.
Squawk	A squawk is an entry in a squawk book to record an anomaly, damage, discrepancy, malfunction, or other situation that affects the aircraft or mission equipment. It is used to provide information to others who may maintain, repair, or operate the aircraft.
SSD	Sacramento Sheriff's Department
Static Display	Static Display shall mean the result of placing a Department aircraft at a location that will be visited by persons for the purpose of educating those persons

regarding Department aircraft operations. Static displays generally include the presence of Department air crew personnel.

TFO Tactical Flight Officer is the designation for the Observer assigned to a flight crew.

Urban Area An urban environment is an area within a city or town. Urban areas are more hazardous for off-site landings due to structures, light poles, wires, and a likelihood of people nearby.

VFR Visual Flight Rules (FAA designation).