

Operations Manual

Preface

The following procedures are intended to promote safe, efficient and lawful operation of unmanned aerial systems (UAS). Safety above all else is the primary concern in each and every operation, regardless of the nature of the mission.

Philosophy

Lift Aerial Marketing, LLC (LA)'s philosophy is to deliver the best aerial photography, videography and cinematography for property mapping and inspection for its real estate, architecture and construction clients at a very competitive price with higher quality and delivered in a shorter time frame compared with traditional videography and photography methods.

LA is focused on the application video filming and inspections for residential, commercial and industrial real estate and construction site capture. LA's focus is to capture and provide to its clients high quality, state of the art, beautifully captured video used to market to possible buyers the features of residential homes, commercial and industrial buildings and real property. Additionally, LA provides precision inspections of same homes, buildings and property through the use of sensors, special multispectral cameras and other technology used to collect data of the status of service of the facility inspected.

Currently, the FAA views UAS operations in four overarching categories, (1) Close Set Film Production, (2) Videography and Photography, (3) Data Collection and (4) Communications. When following the FAA's category determinations and reviewing the many application uses, LA's applications fall under the categories of; Video and Photography and Data collection. These categories are the underlying bases for 89% of all UAS applications excluding delivery applications where an item would be delivered at a location or to person after landing.

It shall be the mission of LA to perform controlled flights for multiple multimedia applications in various practices as defined and detailed in the 333 Exemption Letter of Petition. The use of (UAS) as a complete aerial resource provides a system that at its core will illuminate a digital path to real world navigational needs. LA's aerial UAS applications are based in the categories of video, photography and data collection. LA's professionals deliver video imagery, knowledge and experience to its clients providing the highest quality UAS videography, photography and data collection. The use of LA's UAS videography, photography and data collection programs provides important information and imagery collection that can't be supplied by any other means. Such important programs provide endless opportunities of application specific operations flying hundreds if not thousands of missions.

Protection of Rights and Privacy

It is the intent of every LA's trained and qualified pilot to make every reasonable effort to not violate privacy laws or invade any person's expectation of privacy when operating a UAS in all situations.

When operating the UAS, LA's PIC will abide by all FAA Regulations and receive the proper authorization as related to such flights.

LA's trained PICs and VOs will assure that the protection of citizen's civil rights and reasonable expectations of privacy as a key component of any decision made in deploying a UAS. PICs and VOs will be accountable for ensuring that operations of UAS have minimal intrusion upon citizens.

To accomplish this primary goal LA will provide training for a variety of scenarios:

- a) In the event of services being deployed where UAS are being flown, the onboard camera(s) will be turned so as to be facing away from occupied structures to minimize inadvertent video or still images of uninvolved persons.
- b) All video and still images will be maintained in strict compliance with state and federal privacy policies and procedures.
- c) A website for employees, personnel and public input will be maintained and regularly monitored to address employees, personnel and citizen concerns and recommendations.
- d) LA employees and personnel will not conduct random surveillance activities. The use of UAS will be tightly controlled and regulated.

UAS Applications

There are hundreds of UAS applications and uses. The following is a list of several of the more popular application uses and identifies LA's UAS application uses highlighted in bold type.

Pipeline Inspection
Stratospheric Telecommunications
Motion Picture Production
Real Estate Photography
Real Estate Inspection
Real Estate Marketing
Event Performances
News Gathering
Security Operations
Aerial Mapping
Mining
High Altitude Imagery
Maritime Surveillance
Environmental Sensing
Media and Traffic Monitoring
Law Enforcement
Emergency Management Natural disasters
Meteorology
Hurricane Monitoring
Cryospheric Research - Arctic and Antarctic
Bridge Inspection
Transmission Line Inspection
HAZMAT Inspection

Emergency Medical Supply
Traffic Monitoring
Aerial Surveying
Damage Assessment
Insurance Claim Appraisal
Concert Security
Environmental
Geomatics
Agriculture
Sports Video
Runway Inspection
Virtual Tours
Landmark Inspection
Coffee Harvest Optimization
Crop Disease Management
Herd Tracking and Management
Entomology
Forestry Inspection
Fisheries Management
Species Conservation
Wildlife Inventory
Mineral Exploration
Remote Aerial Survey
Forest Fire Surveillance
Forest Fire Mapping
Volcano Monitoring
Remote Aerial Mapping
Oil Spill Tracking
Snow Pack Avalanche Monitoring
Ice Pack Monitoring
Poaching Patrol

- e) LA's employees will meet quarterly for the purpose of reviewing the existing UAS procedures as well as new technologies, laws and regulations on UAS usage. The committee will consist of LA's personnel, clients and community leaders. The committee will follow the leadership of the community and will help present proposed policies, procedures and changes meeting the needs of City Councils, legal and community groups. Additionally, the UAS committee will solicit feedback prior to meetings referencing to research and education strategies and policy changes.
- f) LA and its employees will operate strictly within the letter of the laws and regulations maintaining public safety, privacy and freedom from intrusion as well as the guidelines imposed in the grant of the 333 Exemption.

Definitions

COA (Certificate of Authorization) — Given by the FAA grants permission to fly within specific boundaries and perimeters. Training flights cannot take place without UAS research and education mission critical personnel who will be the only people authorize to perform such training missions.

VO (Visual Observers) — VO's are required by the FAA for the flights of UAS defined as a person who uses only his or her eyes to scan for traffic and inform the pilot of an unmanned aircraft (UA) when traffic is in the vicinity of the UA so that its pilot can avoid it. *See additional definitions and aviation abbreviations on the FAA.gov website.*

PIC (Pilot in Command) — The pilot in command (PIC) of a UAS is the person who is ultimately responsible for its operation and safety during flight.

VFR (Visual Flight Rule) — VFR flight is based on the principle of “see and avoid.” The presumption made in establishing the basic VFR weather minimums is that aircraft flying at lower altitudes flight in an unobstructed visual flight path.

Administration

1.1 Operations Manual

The policies and procedures contained in this manual are issued by authority of the LA leadership. As such it is an official document of LA “Lift Aerial Marketing, LLC” and is not intended to be all-inclusive, but is to be used as a supplement to FAR's, Federal Aviation Regulations, Aircraft Manufacturers' manuals, directives and approved flight manual guides.

This manual has been written to address LA's available UAS safety and operations information as of the date published. Technology advancement in aerial equipment, personnel and operations changes over time drives LA's management to systematically monitor, edit, organize and change critical parts of the manual and other safety and operations manuals and systems to reduce UAS flight and operations risk of aircraft failures or loss of operations.

Given this, it is essential that this manual be continually updated as necessary. The entire manual will be reviewed, at a minimum, annually to assure it provides current and correct information. A copy of the manual (electronic and/or paper) will be issued to all LA personnel having UAS flight operations responsibilities.

1.2 Organization

- a) The LA shall be comprised of those personnel approved in part by the Federal Aviation Administration and LA. LA's UAS personnel include UAS PICs, VOs and other personnel assigned to UAS flight operations.
- b) The LA administration is comprised of LA's president, officers and personnel that have business and UAS safety and training knowledge.

1.3 Personnel

- a) The UAS Flight Director is responsible for the overall direction and performance of LA's flight operations.
- b) The UAS Flight Director is responsible for the day to day supervision and management of LA flight operations and flight personnel.

c) UAS Flight Director

Responsibilities:

- i. Maintaining all training, flight and maintenance records for each UAS PIC and VO as well as individual airframes.
- ii. Maintain contact with the FAA and regulations as they are published.
- iii. Evaluate flight personnel based on mission type and need.
- iv. The UAS Flight Director must maintain a working knowledge and proficiency on all UAS operated by LA personnel.
- v. UAS PIC employees to be considered for selection as a UAS PIC instructor are currently required to possess an FAA Sport pilot's certification and a Class II FAA physical examination and or a current state driver's license.

UAS PICs interacting with Air Traffic Control (ATC) shall have sufficient expertise to perform readily. UAS PICs must have an understanding of and comply with FAA and Military Regulations applicable to the airspace where the UAS will operate.

A UAS PIC's primary duty is for the safe and effective operation of UAS in accordance with the manufacturers' approved flight manual and FAA regulations policies and procedures. UAS PICs must remain knowledgeable of all FAA regulations; UAS manufacturer's flight manual and bulletins and City and State UAS policy.

UAS Flight Director may temporarily remove any employees and personnel or UAS PIC from flight status at any time for any reasons including; performance, proficiency, physical condition, etc. Should removal become necessary, the person will be notified verbally and in writing of the reason and the further action to be taken and expected duration of such removal.

UAS VOs Personnel to be considered for selection as a VO are not required to possess a Class II FAA certification (private pilots) or a Class II FAA physical examination. They will, however, be required to hold a current valid a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a U.S. territory, a U.S. possession, or the Federal government.

- a) VOs must have been provided with sufficient training to communicate clearly to the PIC any instructions required to stay clear of conflicting traffic. VOs will receive training on rules and responsibilities described in 14 CFR 91.111, Operating Near Other Aircraft, 14 CFR 91.13, Right-of-Way Rules, cloud clearance, in-flight visibility, and the pilot controller glossary including standard ATC phraseology and communication.
- b) PICs and VOs must have in their possession a current 14 CFR 91.17, Alcohol or Drugs, test as applies to PICs and VOs.
- c) A VO's primary duty is to see and avoid all other aircraft traffic, stay clear of all other building, structures and obstacles.
- d) A VO's secondary duty is to operate the UAS's equipment including cameras, sensors, radio communications as well as perform anything activities that may affect the UAS PIC's primary duty.

- e) The UAS Flight Director shall maintain a file for each PIC and VO which shall include copies of FAA certifications, training records, etc. This file can be reviewed in accordance with current Federal policies and procedures.

1.4 Scheduling

- a) To maintain a level of proficiency UAS personnel will be required as part of their continued participation to attend online training updates as they are made available. UAS personnel training will be coordinated through the UAS Flight Director and announced in advance for scheduling purposes for participating personnel.

1.5 Miscellaneous

- a) Requests for immediate UAS flight launch, support and assistance will be reLAanded to by the Flight Director. Should the request involve an immediate threat to life, or property, an LA trained UAS PIC is authorized to accept or decline such request based on previously approved authorization or their flight and operations experience. Proper policy and procedure, as well as FAA regulations shall be followed when accepting emergencies.
- b) Complaints or inquiries regarding UAS operations shall be referred to LA's Flight Director for immediate cure and accountability then referred to the LA president.

2.1 Safety Policy

LA is committed to promoting a safe and healthy workplace, including:

- a) Personnel will at all times protect and prevent damage to equipment, the environment and property.
- b) Company culture of open reporting of all safety hazards or incidents.
- c) The personnel will support all UAS safety training and awareness programs.
- d) The Flight Director is trained in conducting regular reviews of safety policies, procedures and practices with all personnel.
- e) The Flight Director continuously monitors the UAS community at large to, ensure that best safety practices are incorporated into the LA UAS flight operations.
- f) It is the duty of every person to contribute to the goal of continued safe operations. This contribution may come in many forms and always includes operating in the safest manner practical and *never taking unnecessary extreme risks*.
- g) Any safety hazards, whether procedural, operational or maintenance related should be identified if possible before an incident occurs. Any suggestions in the interest of safety should be made directly to the UAS Flight Director as soon as known.

If any UAS PICs, VOs or other personnel has knowledge of unsafe or dangerous acts committed by anyone, the UAS Flight Director is to be notified immediately so that corrective action(s) may be

taken. Hazards requiring immediate attention will be brought to the attention of the Flight Director verbally and without delay.

2.2 Operational Hazard and Occurrence Report (OHOR) and Investigations

Occurrences are unplanned safety related events, including accidents and incidents that could impact safety or become a hazard that may be cause of potential harm.

- a) The OHOR concept provides a mechanism to report hazards and occurrences, real and perceived, to those responsible for LA and operations.
- b) There is no specific format for the OHOR as the information provided is what is important, not the format and should be used without hesitation to report any anticipated, current, or experienced safety hazards, or occurrence. OHOR can be submitted anonymously to the Flight Director to get the matter proper attention.
- c) Every hazard and/or occurrence that involves UAS will be investigated with the results and corrective action taken communicated to LA personnel. The investigation will be conducted by the Flight Director and Personnel under the direction of LA's officers or personnel who have the technical skill necessary to perform correct actions.
- d) UAS operational Hazards requiring immediate attention will be brought to the attention of the Flight Director, verbally, without delay firstly, then to the attention of LA.
- e) ALL LA PERSONNEL ARE AUTHORIZED TO TAKE IMMEDIATE ACTION TO CORRECT ANY POSSIBLE HAZARD OR HAZARDOUS CONDITION WHERE AN OPINION OR DELAY MAY RESULT IN AN ACCIDENT, INJURY OR DEATH. The Flight Director will be notified immediately ASAP in such situations.

2.3 The LA President, Flight Director, Safety Officer, PIC, VO and all personnel are all responsible for the following time of change, monthly, quarterly and yearly activities:

- a) Ensuring that UAS flight operations personnel understand applicable regulatory requirements, standards and organizational safety policies and procedures. (M)
- b) Observe and direct safety educational programs by monitoring all procedures. (Q)
- c) Observe standards and best practices how they impact UAS operational safety. (M)
- d) Communicate all reported safety related problems and the corrective action taken and the proper procedures for handling that problem should be discussed and documented. (M)
- e) All safety incidents should be circulated with pertinent safety information.(TOC)
- f) All safety incidents should be circulated with emergency safety bulletins. (TOC)
- g) Place any electronic copies of safety information or bulletins on LA's UAS website for personnel access. (TOC)

It is emphasized again that safety is the responsibility of ALL personnel.

2.3 Medical Factors

- a) UAS PICs, VOs and participating personnel shall only deploy the UAS when rested and emotionally prepared for the tasks at hand.
- b) Physical illness, exhaustion, emotional problems, etc., can seriously impair judgment, memory and alertness. The safest rule is not to act as a UAS PIC or VO when suffering from any of the above. PICs, VOs and participating personnel are expected to "stand down" when these problems could reasonably be expected to affect their ability to perform UAS flight operations.
- c) A self-assessment of physical condition shall be made by all personnel before or during pre-flight activities.
- d) Performance can be seriously hampered by prescription and over the counter drugs. The Flight Director will be advised anytime such drugs are being taken. If it is determined that the medication being taken could hamper a flight operations team member that person shall be prohibited from all flight operation exercises for a time period of no less than 48 hours.
- e) No personnel shall act as a UAS PIC within eighteen hours after consumption of any alcoholic beverage, while under the influence of alcohol, or while consuming an alcohol concentration of 0.04% (FAR 91.17)

3. Training

3.1 Objective

The key to continued safe operations is by maintaining a professional level of competency. The first step in this process is establishing minimum qualifications and the second step involves training personnel, "employees" to acceptable levels of flight operations competency.

3.2 On-site Basic Instructors

- a) FAA certified private pilots will be given instructor duties. Such duties can include developing training courses, provide full knowledge training and employee evaluation and documentation.
- b) Duties for the training of new employees falls upon the UAS Flight Director or PIC that has the most flight logged time, UAS equipment and operations knowledge. Instructors will be designated by the Flight Director.

3.3 Training Plans

- a) All employees will have a UAS training plan on file that outlines training objectives. This training plan will be held in conjunction with an employees, personnel training file.

- b) The LA approved training plan can be developed by the LA Flight Director, the education staff or outside 3rd parties.
- c) All UAS deployments or exercises will be documented and count toward an employee, personnel's time in operations training.
- d) It is the employee, personal's responsibility to verify their training file contains all pertinent information.

3.4 Initial Training

- a) Upon acceptance by the Flight Director as the education source, the Flight Director shall review FAA UAS operations requirements at FAA.gov, review UAS flight, user and other manufactures guidelines and manuals and review LA's 333 Exemption grant for UAS restrictions and directives.
- b) The PIC and VO must have completed sufficient training to communicate to alerts, directives or instructions required to remain clear of conflicting traffic. This training at a minimum shall include knowledge of the rules and responsibilities described in 14 CFR 91.111, *Operating Near Other Aircraft*; 14 CFR 91.113, *Right-of-Way Rules: Except Water Operations*; and 14 CFR 91.155, *Basic VFR Weather Minimums*; knowledge of air traffic and radio communications, including the use of approved ATC/pilot phraseology; and knowledge of appropriate sections of the *Aeronautical Information Manual*.
- c) UAS PIC must enroll in (fixed wing) training to obtain their private or Sport pilot license/certificate if not already in possession.
- d) UAS PICs who fail to successfully complete the initial LA Flight Director's training program may be re-scheduled for additional UAS training.
- e) After a PIC has received their FAA private or Sport pilot's license but before a PIC can provide UAS training to employees, they must complete at least 8 hours of flight training with the Flight Director for proficiency of flight training exercises and airframe knowledge. This must be accomplished to demonstrate their ability and general knowledge of UAS.

3.5 Recurrent Training

- a) Students who do not have any documented training or flight time within a span of 90 days will have to attend LA's UAS update training proficiency programs.
- b) Recurrent training is not limited to actual UAS flight skills only, it also includes knowledge of all pertinent UAS operations and aviation matters.

3.6 Miscellaneous

- a) Depending on the nature of the training request, all efforts will be made to accommodate LA personnel.

- b) All requests for UAS training shall be approved through the Flight Director and timekeeping during those training hours.
- c) Students are encouraged to attend all UAS training opportunities and participate in FAA sponsored safety seminars.
- d) Training shall be conducted at LA locations and follow the Flight Director's flights provisions within the COA.

4.1 Call-out Operations Procedures

- a) The Flight Director will contact the PIC and VO to meet at the flight and mission locations.
- b) The PIC and flight operations personnel are responsible for transporting the UAS and the required equipment to the location and setup the base of operations.
- c) Upon arriving at the requested location the UAS PIC will contact the Flight Director and receive a briefing on the training mission.
- d) The PIC will make an on location determination of the UAS, equipment and personnel required to perform the requested mission safely within LA's and the FAA policies and procedures.
- e) If the PIC determines that the use of the UAS would violate safety measures, LA policy or directives then the PIC will inform the Flight Director of the potential conflict along with recommendations for modifying the requested mission to conform to safety measures and LA's policies and procedures.
- f) If this modification is a major change from the original approved mission, the PIC will contact the Flight Director for direction on how to proceed.
- g) Upon completion of the mission, the PIC will make a full report of the modified mission circumstances and their concerns and issues associated with the flight to the Flight Director.
- h) PICs will have sole discretion for declaring safety, LA or FAA rules violations.
- i) If a PIC determines that a requested mission would violate LA or FAA rules or endanger personnel and civilians, then the PIC will respectfully inform the Flight Director of the reasons for refusing to operate the UAS.
- j) The PIC's has the final and absolute authority to cancel or abandon a mission because of safety circumstances it is the decision of the PIC only.
- k) If the PIC determines that the requested mission may potentially damage the UAS or its associated equipment the PIC will inform the Flight Director of their concerns and may or may not chose to cancel the mission.

4.2 Flight Boundaries

Although there may be requests for UAS support outside the boundaries of mission, no person at any level in the chain of command has the authorization to authorize deployment outside of the COA. Any mission requests for such uses are restricted from flight until a new COA is submitted to the FAA and by the Flight Director and approved for such flight.

- a) At no time shall UAS support be granted outside the flight plan or COA without the Flight Director first obtaining an emergency FAA- COA approval.
- b) Information regarding flight boundaries can be found in the FAA- COA and the use of the NAS National Airspace System.
- c) Maximum mission altitude shall not ever, under any circumstances exceed 400' (AGL) per the FAA COA.

4.3 Minimum Personnel Requirements

Due to the nature of the LA UAS missions, the minimum personnel required for any mission will be the UAS PIC and VO. Under no circumstances will a PIC attempt to complete a deployment or mission alone.

4.4 Personnel Responsibilities for Deployments

“OPEN COMMUNICATIONS ACHIEVES SAFE OPERATIONS”

a) The UAS PIC

- I. The PIC is directly responsible for safety and is the final authority over the actual mission operations of the UAS.
- II. UAS PICs have absolute authority to reject any missions based on personnel safety or violation of LA or FAA regulations.
- III. No one has the authority, regardless of their position, to order a PIC to conduct a flight of any type when, in the opinion of the PIC, the mission poses risk to personnel or is in violation of LA or FAA regulations.
- IV. PICs are responsible for compliance with this manual, LA policy and procedures and FAA regulations.
- V. The PIC's primary duty during a mission is to operate the UAS safely and protect all and any ground personnel while accomplishing the goals of the mission.
- VI. PICs shall avoid any and all obstacles that will lessen flight safety during the mission.
- VII. PICs shall be responsive to the requests of the VO in order to accomplish the mission.

- VIII. PICs shall be responsible for documentation of each mission updating flight logs and notating post flight UAS or equipment issues.

b) The UAS VO

- I. VOs shall see-and-avoid any obstacle that will lessen safety during all missions.
- II. VOs are responsible for the ground safety enforcement per-during and post mission.
- III. Under rare and specific missions have high visibility, VOs shall operate any attached systems and accessories to the UAS such as cameras or sensor arrays.
- IV. A VOs primary duty during a mission is to have continuous eyes-on the UAS during all modes of operation allowing the PIC to maintain complete focus on the operation of the UAS.
- V. VOs shall remain alert of suspicious persons or activities on the ground and coordinate response by informing the Flight Director and other security and or operations ground personnel.
- VI. VOs shall provide verbal commands and monitor UAS flight position delivering radio flight safety updates as needed.
- VII. VOs shall update and assist the PIC with safe operation alerts of the UAS mission as needed.
- VIII. VOs shall be responsible for assisting the PIC with completing all documentation of each mission and the updating of flight logs and other notations.

c) Personal Equipment

- I. PICs/VOs shall wear eye sun protection at all times when required while the UAS is in flight to improve their line of sight quality during a mission.
- II. The Flight Director, PIC, VO and flight operations personnel should take necessary measures to deploy in a professional manner and assure that they are recognized via standard group colors.
- III. PICs, VOs and personnel will take into consideration the current weather conditions when planning a mission and wear appropriate clothing to deploy comfortably.
- IV. Use of additional personal radios or cellular phones during missions are not to be operated or in use during any flight operation unless being used as backup communications resources. (Use of personal radios or other electronic devices are strictly prohibited during all flights.)
- V. PICs, VOs and personnel should at all times take into consideration safe operation of the UAS when using radios or another communication electronic devices associated with flight operations or the mission.

5.0 Pre-Flight/Post-Flight Actions

5.1 Inspections

- a) PICs/VOs are both responsible for a thorough preflight inspection of the UAS and other important inspection operations with regards to UAS equipment.
- b) Before and after each mission deployment the PIC, VO and flight operations personnel shall conduct a thorough inspection of the UAS in accordance with UAS instructions contained in the manufactures user's manual.
- c) PIC, VO and flight operations personnel shall perform all pre-deployment operations needed such as UAS to radio calibration and of bench testing processes to help insure a safe mission when deployed.
- d) Any issues found that could place the flight or ground personnel, the UAS or systems and equipment in jeopardy of safe operations, shall be documented and resolved immediately prior to flight.
- e) It has been recognized that the use of a checklist is a significant method to combat UAS accidents. A pre-flight checklist is contained at the Base Station and will be utilized prior to each flight.
- f) Any system and or physical equipment issues that cannot be resolved through additional inspection and on-site testing may change the UAS's airworthy and ready status.
- g) Any system and or physical equipment issues that may have an impact on safety of the mission will change the UAS's airworthy and ready status to "Not Ready for Fight". All deployment and pre-flight issues with personnel or equipment must be resolved before flight.

5.2 Weather

Before each deployment the Flight Director, PIC and or VO will ensure that he/she gathers enough information to make themselves familiar with the weather conditions existing throughout the area of deployment for the Flight Duration of the mission.

- a) The PIC shall utilize FAA approved weather resources to obtain the latest and most current weather conditions.
- b) An anemometer will be utilized at the mission location in order to better estimate the wind speed and determine if it is within the flight performance envelope of the UAS being deployed.
- c) UAS PICs, VOs and flight operations personnel will use the Beaufort scale when making deployment decisions in regards to wind conditions. This scale can be located in the UAS manufacture's user's manual. If not visit: www.LAc.noaa.gov/faq/tornado/beaufort.html

- d) The weather conditions reported for the operation shall be recorded in the flight log pre and post flight.
- e) The PIC shall ensure that the flights will occur within VFR weather requirements.

5.3 Planning

- a) The PIC, VO and flight and ground personnel shall familiarize themselves with all available information concerning the UAS deployment including, but not limited to, the weather conditions, flight zone or area, hazards, and the mission goals.
- b) PIC will ensure that the location for take-off and emergency landing is adequate for safe UAS deployment and recovery.
- c) The take-off/landing location should be clearly marked and identifiable with electric lights, brightly colored short cones or by other appropriate methods.
- d) The PIC will identify at least one emergency landing area pre-mission deployment and clearly mark and make all personnel aware of its location.
- e) PICs will ensure that they are aware of their surroundings in the event that an emergency landing is necessary. This includes the ability to recover the UAS in encumbered areas.

5.4 Checklists

- a) PICs shall utilize checklists to ensure the highest level of safety.
- b) Prior to flight, the flight log shall be notated and other flight documents of record will be completed with important entries of data.

5.5 Maintenance

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

5.6 Other

- a) UAS PICs/VOs will ensure that no items are attached to the UAS prior to flight that are not required for safe operation and to complete the mission goal.