



<b>Policy Number:</b>	<b>8300-01</b>		
<b>Policy Name:</b>	<b>Small Unmanned Aircraft System</b>		
<b>Adoption Date:</b>	<b>06.22.2021</b>	<b>Revision Date:</b>	
<b>Approved By:</b>	<b>City Manager Mark Detter</b>	<b>Expiration Date:</b>	<b>N/A</b>

## **1. SCOPE**

This Small Unmanned Aircraft System Policy (Policy) governs City of Valdez (COV, City, or Valdez) operations of the small unmanned aircraft system (sUAS) Program. The sUAS Program harnesses aerial data to facilitate informed community maintenance, growth, and capable emergency response. The Program is administered by the City office of Emergency and Disaster Management (EDM). Participants are drawn from several emergency response and non-emergency response departments in the City of Valdez.

## **2. PURPOSE / BACKGROUND**

Use of small unmanned aircraft (sUA) in the public sector is becoming increasingly commonplace. A sUA can be utilized by COV employees at a fraction of the cost of manned aircraft, while not subject to the availability or potential limitations of a third party. Creation of the City's sUAS Program is in response to a host of diverse issues directly affecting all persons within the incorporated limits of the COV. These issues are primarily centric to: natural and manmade hazards; City planning, maintenance, and management; and routine emergency response to complex events.

- **Natural and Manmade Hazards.** Valdez residents, and infrastructure, are exposed to earthquakes, avalanches, tsunamis, extreme snowfall, volcanic activity, flooding, terrorism, rain deluge, hazardous material release, wildfires, slope instability/landslides, glacial retreat, high winds and more.
- **City Planning, Maintenance, and Management.** In 1964, a 9.2 magnitude earthquake decimated the original Valdez town-site. Within approximately three years, the majority of town was entirely relocated to a new site. Compared with seasoned municipalities, the COV is in its physical-growth infancy. Consequently, new infrastructure and maintenance will be in progress for years to come.
- **Routine Emergency Response to Complex Events.** Valdez Police, Fire, Emergency Medical Services (EMS), and the Backcountry Search and Rescue Team (BSRT)

respond to complex emergencies that require special skill-sets and tools to serve the public. Some of these incidents may include, but are not limited to: structure or wildland fires, recreationists in distress, dangerous persons, accident investigations, criminal investigations, mass casualty incidents, work-related incidents, and missing or overdue persons.

Prior to this Policy, two employees from the City's Capital Facilities and Ports and Harbor Departments acquired sUA to informally address a few of these local issues. Their proactive efforts facilitated the aerial observation of a number of significant recent events, some of which are: flooding and erosion occurring on or in Valdez waterways (2016-2020), the construction of the New Boat Harbor (2018-2019), a vehicular homicide investigation that led to an arrest and conviction (2018), the unprecedented separation of the water-bound portion of the Valdez Glacier (July, 2019), and a BSRT operation where the sUA was crucial to the discovery and rescue of four stranded *packrafters* in a remote section of the Tsaina River (2019). This Policy unites their experience with an organized sUAS Program designed to meet the City's diverse needs.

The purpose of this Policy is to centralize all sUAS Operations in the City under one overarching mechanism that:

1. Ensures operational compliance with local, state, and federal laws
2. Is subject to the U.S. Constitution, the Alaska Constitution, and applicable case-law
3. Establishes sUAS Program organizational structure
4. Promotes a contemporary sUAS Program
5. Facilitates operational transparency for the public and City administration
6. Demarcates training and operational requirements for the sUAS Team
7. Contributes to a safe public airspace through defined risk mitigation
8. Enables informed City expansion and maintenance
9. Increases the City's protective capabilities for persons, infrastructure, and the environment
10. Safeguards sustained sUAS Operations through, accountability, competence, and public approbation

### **3. POLICY**

It is the policy of the COV that sUAS Operations and equipment shall be employed only in the performance of official COV duties, by trained COV sUAS Program participants. The sUAS Program encompasses several City departments and shall be administered by the City office of Emergency and Disaster Management. The sUAS Program does NOT replace existing, or future, City relationships with manned aircraft contractors. Manned aircraft deliver and retrieve persons and heavy cargo; can operate at high altitudes and greater distances; and are often piloted using extensive knowledge of local terrain and weather patterns. The City acknowledges, however, the sUAS Program embodies a substantial increase in citywide capabilities for a variety of specialized circumstances. Therefore, the City will continue to embrace relationships with manned aircraft contractors while progressively developing new capabilities. The City's Policy governing the sUAS Program is as follows:

- A. **Ensures operational compliance with local, state, and federal statutes.** The City may, at its discretion pass local ordinances governing sUAS Operations. The sUAS

Program shall comply with local ordinances and Alaska State Statutes. The sUAS Program shall also comply with federal regulations governing aircraft registration, pilot licensing, permitting, and aircraft operations.

- B. **Is subject to the U.S. Constitution, the Alaska Constitution, and applicable case-law.** This Policy requires sUAS Program operations be subject to the U.S. Constitution, the Alaska State Constitution, and all known applicable case law pertaining to sUA Operations.
- C. **Establishes sUAS Program organizational structure.** The City Emergency Manager shall act as the sUAS Program Administrator. Additional Program positions shall be created in support of the sUAS Program. Persons desiring to join the COV sUAS Program shall complete a participant application. A sUAS Team-member job description shall be created and submitted to the Human Resources Department.
- D. **Promotes a contemporary sUAS Program.** Procedures in this Policy shall be informed and contemporary. An internal review of this Policy and its procedures shall be conducted annually. Changes to this Policy may be made only upon review, and written acknowledgment, of the City Manager or his/her designee.
- E. **Facilitates operational transparency for the public and City administration.** It is a requirement of this Policy that further clarification be provided through the creation of procedures established herein. All sUAS Program flights must be for a public purpose. All sUAS flights shall be authorized by the City Manager or his/her designee(s). Procedures shall be established for administrative notification and approval of flight. A record of all sUAS flights shall be maintained, and available for public viewing. This Policy requires that procedures be established for public notification of all sUAS Program flights conducted specifically for law enforcement purposes. Provisions shall be made for community involvement and public comment pertaining to the development of this Policy. A comprehensive description of the sUAS Program shall be made available to the public. Clear procedures shall be established for the storage, destruction, and dissemination of data acquired during sUAS Operations.
- F. **Demarcates training and operational requirements for the sUAS Team.** All sUAS Program participants shall comply with clearly defined written training requirements that include, but are not limited to: initial operator certifications; bi-monthly proficiency exercises; an annual day/night scenario-based Operation; an annual policy, procedure, and legal review training meeting; and biennial operator re-certifications.
- G. **Contributes to a safe public airspace through defined risk mitigation.** All sUAS flights shall employ, at minimum, two sUAS Team members for the duration of any flight, unless otherwise addressed in this Policy. Radio notification shall be made prior to any sUAS flight. All sUAS Operations shall yield the right-of-way to manned aircraft. No sUAS flights shall commence prior to completing a sUAS Program pre-flight checklist. No sUA in this Program shall be equipped with any accessory explicitly designed and/or intended as a weapon. The sUAS Program shall make efforts to liaison, and participate, with civic organizations associated with local manned flight. The sUAS Program shall be covered by City-provided liability insurance.

- H. **Enables informed City expansion and maintenance.** This Policy authorizes, and encourages, sUAS Program employment in non-emergency City departments.
- I. **Increases the City's protective capabilities for persons, infrastructure, and the environment.** This Policy authorizes, and encourages, sUAS Program employment in COV emergency services to include but not be limited to: The Valdez Fire Department (including EMS), The Valdez Police Department (including Animal Control and Code Enforcement), The Valdez Backcountry Search and Rescue Team, and the COV Incident Management Team (including disaster prevention, protection, mitigation, response, and recovery).
- J. **Safeguards sustained sUAS Operations through accountability, competence, and public approbation.** sUAS Team members shall conduct themselves and sUA operations in a manner that garners public trust and confidence. Appropriate accountability measures shall be compulsory in this Program with the intent to maintain competence, public trust, and Program sustainability, not to punish sUAS Team members.

#### 4. PROCEDURES

- A. **Ensures operational compliance with local, state, and federal statutes.** Currently there are no ordinances specifically naming sUAS Operations in the COV. There are, however, existing City ordinances that could apply to sUAS Operations, they are: 9.12.010 Offenses Against the Peace and 9.12.080 Invasive Viewing Prohibited. Additionally, Alaska state statutes 18.65.900 – 18.65.909 specifically address sUAS's. All sUAS Team members shall comply with City ordinances and state statutes.

The Federal Aviation Administration (FAA) requires all sUA weighing more than 0.55 pounds, and that are not flown strictly for recreational purposes, be registered with the FAA. All sUAS Program aircraft will be registered with the FAA and have their assigned registration numbers visibly affixed to the outside of the aircraft. Each sUAS remote Pilot in Command (rPIC) and Visual Observer (VO) shall obtain a Remote Pilot Certificate from the FAA prior to operational flights (excludes flights performed strictly for training purposes only, when under the direct supervision of an FAA certified rPIC).

In addition to obtaining an FAA Remote Pilot Certification, sUAS Team members shall maintain compliance with required FAA recurrent certifications and must maintain currency. If the FAA changes or alters the requirements for a Remote Pilot Certification, sUAS Team members shall obtain any required FAA supplemental certifications. The sUAS Program may also obtain individual Part 107 waivers and/or a Certificate of Waiver or Authorization (COA) with the FAA prior to any sUAS Operations needing to be performed outside of the bounds of Part 107 rules. Team members shall comply with the provisions of each waiver. In the case of any FAA required reporting, the Documentation Specialist shall complete the report in a timely manner so as to not jeopardize individual pilot certifications or Program waivers.

**B. Is subject to the U.S. Constitution, the Alaska Constitution, and applicable case-law.** The Fourth Amendment of the U.S. Constitution and Article 1 Section 14 of the Alaska State Constitution grant citizens the right "...to be secure in their persons, houses [and other property], papers, and effects, against unreasonable searches and seizures." Whether for emergency or non-emergency purposes, sUAS Program Operations in the COV are bound by the provisions of these constitutions to the extent that exceptions exist resultant to established case-law.

Current exceptions to these constitutional provisions are primarily rooted in actions that must be performed in haste to protect life and prevent the destruction of evidence, also known as "exigent circumstances." sUAS Team members may operate a sUA under exigent circumstances. Additional exceptions exist for circumstances that are deemed in "plain view" which can be described as an observation made by someone who has a legal right to be in the position from which the observation is being made. With respect to plain view, sUAS Team members will not intentionally plan, coordinate, or otherwise conduct sUAS Operations, for law enforcement purposes, outside of those observations that can be made using normal human eyesight (not exceeding human eyesight capabilities with sUA cameras and/or sensors). In other words, sUAS Team members, whether sworn or not sworn and acting on behalf of law enforcement, shall not intentionally conduct surveillance of persons or property using sUA technology that exceeds the limitations of human eyesight unless lawfully ordered to do so by a judge or magistrate.

If a sUAS Program flight requires a warrant be issued by a judge, a sworn police officer for the City of Valdez shall apply for the warrant in accordance with standard practices and be present with the sUAS Crew during flight. The public may request to view a warrant related to a sUAS flight using historically established records request procedures at the Valdez Police Department. To safeguard the integrity of a lawful police investigation, and to protect the victim(s) of a crime, access to some warrants may be limited by a judge and not be immediately available for public viewing at the time of the request.

While private property owners do not regulate the airspace above their property (airspace is regulated by the FAA), this sUAS Program shall take reasonable steps to safeguard personal privacy. It is likely that in order to conduct many sUAS Operations, the rPIC may be required to fly over persons and/or property not directly associated with the Operation. If this is the case, the rPIC will navigate through that airspace (i.e. from point "A" to point "B", as in the case of private and commercial aircraft) in a timely manner to accomplish the necessary task without making or recording observations of the unassociated persons and/or property. Any such data inadvertently acquired shall be scrubbed and/or deleted in accordance with this Policy and City and police department data retention policies.

**C. Establishes sUAS Program organizational structure.** The City Emergency Manager is the sUAS Program Administrator. Under the direction of the City Manager or his/her designee, the Program Administrator oversees implementation of the sUAS Program for all City government departments. Upon approval of this Policy, all sUAS equipment will be purchased, and maintained, by the City Office of Emergency and Disaster

Management, and its associated budget. Any new equipment, to include new sUA, shall be coordinated with the Program Administrator. The Program Administrator will solicit interest and appoint, at minimum, one sUAS Team member to each of the following positions: Documentation Specialist, Program Trainer, and Maintenance Technician. Team members shall submit a single-page letter of interest to the Program Administrator for the position desired. In the absence of a specific position appointment, the Program Administrator shall fulfil the duties of that position. Position responsibilities are as follows:

**Documentation Specialist:** Coordinates with the Program Administrator for public notification of sUAS Program flights; maintains all FAA records and internal pilot certifications; manages flight logs and flight reports; and assists the Program Administrator with the annual review of the sUAS Policy and procedures. This position does not require an FAA Remote Pilot Certificate.

**Program Trainer:** Certifies sUAS Program pilots using internal certifications, conducts an annual day/night scenario-based sUAS Operation, administers any remedial training needed, conducts training on newly acquired equipment, and maintains a training log. Program Trainers shall receive instructor training from an accredited or credentialed source.

**Maintenance Technician:** Performs equipment inspections and conducts routine maintenance; liaisons with distributors and manufacturers for technical repairs; coordinates needed equipment purchases with the Program Administrator, to include new sUA; and communicates any equipment changes with team members. This position does not require an FAA Remote Pilot Certificate.

Attachments to this Policy and its procedures are necessary to complete the requirements specified within. The Program Administrator shall oversee the creation of all necessary documents and attachments, to be completed within six months from written approval of this Policy. Attachments shall be approved by the City Manager or his/her designee. Operationally, there are two primary sUAS positions: the rPIC and the VO.

**The rPIC:** The rPIC is the primary person in charge of the overall safe operation of each sUAS flight and is responsible for maintaining constant visual line of sight (unless otherwise authorized by the FAA), knowing current weather conditions, adjusting Operations for the presence of any known manned aircraft in the area, conducting a preflight checklist, all in-flight aircraft controls, compliance with this Policy and procedure, and compliance with all Part 107 requirements among other issues pertaining to safe Operations. The rPIC may terminate any sUAS Operation, or training flight, that he/she deems unsafe to persons or property or that violates the law, regardless of the instructions of higher-ranking officials present or not present.

**The VO:** The VO supports the rPIC during the preflight checklist and raises any concerns with regards to safe sUA flight. The VO assists the rPIC in maintaining unaided line of sight on the sUA at all times (unless otherwise authorized by the FAA). Additionally, the VO may operate any auxiliary equipment on the sUA

under the express direction and request of the rPIC, such as: optical cameras, thermal imaging cameras, package delivery, and any other sensing equipment. The VO is also a Program certified pilot and must be prepared to take control of flight at the request of the rPIC or when it is otherwise necessary. The VO is responsible for pre-flight radio transmissions when assisting an rPIC.

Total sUAS Program participants constitute the sUAS Team. Persons desiring to join the sUAS Team shall complete a participant application that will be reviewed and approved by the Policy Review Committee. Applicant acceptance will be evaluated using the following criteria: current Team span-of-control, numbers of existing Team members in a given department, Team needs, applicant attitude, past performance in his/her current COV position, and applicant availability for Operations outside of the applicant's department. The Program Administrator shall oversee the creation of a sUAS Team-member job description. This job description will accompany the participant application and shall be made available to department directors and the Human Resources Department. Program materials shall be stored on a COV server, in a location available to all sUAS Team members. A current list of sUAS Team members shall be provided to the Human Resources Department

Mutual aid may be requested from an organization outside of the COV. Team members and other City employees will refer these requests to the Program Administrator. The Program Administrator may create a memorandum of understanding (MOU) with another organization in advance of a mutual aid request. Once an MOU is approved by the City Manager, or his/her designee, future Operations with that organization will be coordinated by the Program Administrator. For all other mutual aid requests, the Program Administrator will seek approval from the City Manager or his/her designee prior to the commencement of any COV-supported sUAS Operation. If called out for a sUAS Operation or affiliated function, during an employee's scheduled off-time, the employee will be compensated with a minimum of two hours overtime pay, or by the total number of overtime hours worked, whichever is greater.

- D. Promotes a contemporary sUAS Program.** In order to remain contemporary with laws, regulations, and best practices, an annual review of this Policy and its procedures shall be conducted by the Policy Review Committee consisting of: the City Emergency Manager, the Chief of Police, the Fire Chief, and the Capital Facilities Department Director. If changes are warranted, the review committee will submit the proposed changes to the City Manager in the form of a revised draft policy (changes will be clearly delineated in the draft). The City Manager may approve the revised draft policy and/or make recommendations back to the committee. Once a working change has been established and approved by the City Manager, the policy will be updated in the City's document management system. An electronic notification of update shall be made to all sUAS Team members; an acknowledgment of the changes by Team members is required. It is the responsibility of all sUAS Team members to read and abide by all provisions of this Policy and its procedures.
- E. Facilitates operational transparency for the public and City administration.** A comprehensive description of the sUAS Program will be posted on the COV website's EDM page. This Policy and procedures, along with additional sUAS resources and research materials, will also be represented on the EDM page. All sUAS Program

flights, both operational and training flights, shall be recorded in a flight log available to the public on the EDM page; the Program Administrator shall manage this log. The flight log shall include a case number; the date and time of the flight; the approximate location; and the primary City department responsible for the flight. If the flight is for training purposes only, the City EDM office will act as the responsible department for documentation purposes.

A case number shall be generated by Valdez Dispatch for all sUAS Program flights both operational and training whether by an emergency or non-emergency department. It is the rPIC's responsibility to contact dispatch and request the case number, provide a reason for the flight, and the name of the person that approved the flight to the dispatcher. The rPIC shall notify the Program Administrator upon completion of flight and provide the associated case number. The rPIC shall also complete a brief post-flight summary on a Program form or in an approved Program application that includes the following information: case number, date/time, number of hours, designated rPIC/VO, purpose, person approving the flight, completion of a pre-flight checklist, flight anomalies (if any), and equipment issues (if any); any other notes as desired by the rPIC may be included in the summary. The rPIC shall provide the flight report to the documentation specialist and the Program Administrator. For group training, flight reports shall be completed by the Program Trainer. Public notification of flights performed strictly for law enforcement purposes, will be made in real-time using an existing City notification platform designed to reach the immediate affected area. When real-time notification represents a threat of harm to persons (AS 18.65.901), or when prohibited by a lawful judicial order, notification may be exempted. The City Manager designates authority to the Program Administrator, Chief of Police, Fire Chief, and/or Capital Facilities Director, or their designees, to authorize sUAS Program flight. The City Manager or his/her designee may authorize flight when these individuals are not available. The Program Administrator shall maintain a list of approved flight operations and training. These flights shall require a one-time authorization; subsequent flights of the same type will not require pre-authorization, but are subject to the documentation procedures herein.

While approval of this Policy and procedure is not contingent upon a public vote or City Council decision, this Policy and procedure shall be presented to the City Council for community involvement and public comment in accordance with the requirements outlined in AS 18.65.901.

Original data acquired by sUAS's shall be stored in a central location. This data will be stored in digital case files bearing the case number generated by the Valdez dispatcher. All data acquired during sUAS Operations shall be retained, in the central location, for a period of no fewer than 90 days. Copies may be made of data intended for indefinite use or need for retention and distributed to the appropriate City department. Data retention shall comply with the most current COV retention policy. Any sUAS data related to a legal action against the COV shall not be destroyed. Any data disseminated to entities outside of the COV shall be approved by the Program Administrator. Data acquired by a sUAS may be retained by the Valdez Police Department when it is part of a lawful investigation or prosecution, is for training purposes, or when allowed by state or federal law or municipal ordinance (AS 18.65.903). Data lawfully obtained by a sUAS

for law enforcement purposes shall be retained in compliance with the most current policies of, and maintained in safe keeping by, the Valdez Police Department.

- F. **Demarcates training and operational requirements for the sUAS Team.** To conduct any sUAS Operation (excluding training), Team members must have successfully obtained a Remote Pilot Certification from the FAA. Additionally, team members must be certified by the Program Trainer as a Remote Pilot in Command (rPIC) and VO using an internal certification process. The Program Trainer is responsible for the creation and implementation of a written certification process approved by the Policy Review Committee. This certification process must be completed by each Team member within the first six months after their application approval date. The certification process shall require instruction and training in the following (but not limited to):

Flight authorization requirements; legal considerations; notification requirements for damage to a sUAS or other property; flight documentation; data storage and retention; pre-flight assembly of the sUA and controller; pre-flight checklists; routine flight controls; emergency flight procedures; close-proximity flight; auxiliary camera operations; thermal imaging camera operations; Team communication; radio etiquette; nighttime flight (as authorized by the FAA); flight beyond line-of-sight (as authorized by the FAA); and tethered flight.

With the addition of any new accessories, sensors, or equipment to the sUAS Program (i.e. package delivery, avalanche beacon sensing, etc.), the Program Trainer shall provide associated training to all Program participants. Any new training shall have a written record made that includes: the date, training content, and Team members present. New equipment shall be included in the written certification process in the next policy and procedure update. To operate new equipment, all Team members must receive training from the Program Trainer.

Training and operational requirements include:

- **Bi-monthly Proficiency Exercises.** Each sUAS Team member shall complete a bi-monthly (every two months) proficiency exercise. The Program Trainer shall coordinate with participants to inform on which proficiency exercise corresponds to a given month-set. Once Team members have completed their internal pilot certification, they will coordinate between one another, and with the Program Trainer, to conduct the bi-monthly exercises in pairs (one rPIC and one VO). Each Team member shall complete the exercise in the role of rPIC and VO. The duration of these exercises will be designed not to exceed two hours per team-pair and may be coordinated to meet their own scheduling needs. A record of completed exercises will be maintained by the Program Trainer in the training log.
- **Annual Day/Night Scenario-based Operation.** The Program Trainer will coordinate with the Program Administrator to conduct a mandatory annual scenario-based sUAS Operation. The scenario training will involve day and night operations that simulate a multi-faceted emergency response. Team members will alternate acting as the rPIC and the VO. For nighttime Operations, thermal imaging cameras shall be incorporated; other available sensors may also be

used. When possible, multiple sUA will be employed during the training with an emphasis on multi-team communication, coordination, and flight planning. All sUAS Team members are required to participate in the annual scenario training. As appropriate, the scenario may involve the fire department, EMS, BSRT, police department, City IMT, other City employees, and community stakeholders.

- **Annual Policy, Procedure, and Legal Review.** The Program Administrator shall conduct a mandatory annual policy, procedure, and legal review training meeting. The training meeting shall occur after the annual policy review has been completed and any final changes made. This policy, procedure, and legal review training meeting shall be attended by all sUAS Team members. This meeting may be held in conjunction with the annual day/night scenario-based Operation.
- **Operator Certification Renewal.** Team members shall renew their internal operator certification with the Program Trainer biennially (every two years) from the time of each member's initial certification. In addition to operator certifications, the bi-monthly proficiency exercises, and the annual scenario training, Team members may coordinate with the Program Administrator to engage in individual proficiency exercises ("stick-time") to maintain skills. It is required that two Team members be present (an rPIC and a VO) when conducting individual proficiency exercises. This training shall be conducted in a manner, and location, so as to not disturb or draw unnecessary attention from the public. Upon completion of an individual proficiency exercise, Team members shall notify the Program Trainer of the date, names of participating Team members, and the number of hours spent training; that data will then be entered into the training log.

**G. Contributes to a safe public airspace through defined risk mitigation.** Safety will largely be accomplished through compliance with the training requirements outlined in this Policy and its procedures. However, all sUAS flights, whether operational or for training purposes, shall employ at least one rPIC, and one VO that is qualified to assume the role of pilot, for the duration of any flight; this constitutes a sUAS Crew. The mandatory VO requirement may be exempted in some circumstances. This exemption largely applies to sUAS Operations and training that is NOT performed under COV/FAA approved Part 107 waivers and/or a COA. sUAS flights may be performed by a rPIC, in the absence of a VO, (unless otherwise specified in this Policy) when ALL of the following conditions apply:

- The rPIC has a valid Remote Pilot Certification with the FAA and the COV sUAS Program
- Sustained flight over people will not be performed (does not include transition flights or flights over persons assisting in a specific mission)
- The flight is less than 400' above ground level and less than 1000' horizontally
- The flight is not intended for close proximity (i.e. close observations/inspections)
- The rPIC maintains unaided visual line of sight of the sUA during flight

While a given flight may qualify for a VO exemption, a VO shall be provided upon the request of an rPIC. A list of routine flights conducted without a VO may be approved by

the Policy Review Committee and maintained by the Documentation Specialist. Immediately prior to all sUAS flights, notification of flight shall be made on the VHF Common Traffic Advisory Frequency (CTAF; 122.9) assigned to the Valdez Airport. Whenever reasonably possible and available, a single support person, other than the rPIC or the VO, shall conduct all flight-support air and ground radio transmissions and communicate essential information with the VO; if another is not available, the VO is responsible. The rPIC and VO shall comply with Part 107 rules, waivers, and/or a Certificate of Waiver or Authorization (COA) from the FAA.

It is the responsibility of the rPIC to yield the right-of-way to all known manned aircraft both in the air and on the ground. The FAA authorizes flight deviation from Part 107 requirements in order to take immediate actions for life safety and the preservation of property. An rPIC shall use all means necessary to avoid an imminent collision with persons, property, and/or other aircraft. Prior to any sUAS flight (this excludes continuous operations/training where multiple flights occur in immediate succession), the rPIC shall complete a pre-flight checklist with a VO present. Completion of the pre-flight checklist shall be noted on the flight report. The sUAS Program, including Team members and equipment, shall be covered by liability insurance provided by the COV. This Policy is subject to the requirements located in the COV substance use and abuse policy.

sUAS Program aircraft shall be operated in ambient temperature ranges and moisture conditions that are in accordance with the manufacturer's recommendations, whenever possible. For the purposes of imminent life safety, an exemption for flights, outside of the above-mentioned manufacturer recommendations, is permitted under this Policy when risk of harm exists only to the sUA and not to other persons. To mitigate general risk to the public and minimize Program losses, the rPIC shall utilize the smallest sUAS Program aircraft that is capable of accomplishing the needed mission. For uniformity and safe operations, all primary and back-up sUA radio controllers shall remain programmed and configured the same for each model of aircraft. Radio controllers are labeled and pre-set to function as rPIC and VO (master and assistant). During a mission, it may be necessary for the VO to become the rPIC and visa-versa; controller function can be changed to accommodate this need if a physical hand-off is not made. At the conclusion of the mission, however, the radio controllers shall be returned to their rPIC and VO pre-sets, according to the label assignments.

Safe sUA flight, and Program sustainability, is the responsibility of all Team members. In conjunction with the requirements to obtain a Remote Pilot Certificate, the FAA identifies five hazardous decision-making attitudes that negatively influence sUA Operations: **anti-authority, impulsivity, invulnerability, macho, and resignation**. Members of the sUAS team must be willing to identify any personal tendencies, either sympathetic or subconscious, towards these attitudes and make individual course corrections to protect the public and ensure sUAS Program sustainability. Team members may be held accountable for violations of this Policy and/or Part 107 rules that are derivative of these attitudes.

It is a general understanding of this Policy that mechanical issues and accidents involving sUAS Operations can happen. Team members will NOT be held accountable for mechanical issues and accidents that are not the result of gross negligence. Team

members may be held accountable, however, for a failure to report such issues in a timely manner. Any Team member that observes a technological issue, a broken part, or a malfunction of any type shall report the issue to the Program Administrator and the Maintenance Technician. The Maintenance Technician will document the issue, and any corrective actions needed, in the Program maintenance log. For issues requiring repair or replacement, the Maintenance Technician will coordinate with the Program Administrator prior to any purchases or corrective actions. The Maintenance Technician will be provided the means to make approved purchases. All receipts of purchase will be provided to the Documentation Specialists. The Documentation Specialist shall make a report to the FAA within 10 days for any incident involving a sUA that results in loss of consciousness, serious injury or damage to property of at least \$500.

- H. **Enables informed City expansion and maintenance.** This Policy authorizes, and encourages, sUAS Program support in the following areas (but is not limited to):

High-water events and monitoring; zoning mapping; zoning reviews and variance applications; the allotment of environmental permits and general permitting; site inspections; the enforcement and abatement of building and zoning codes; mapping of City streets and land; address creation; subdivision and platting regulation; GIS layering; City infrastructure, park, and trail maintenance/inspections; Valdez Glacier monitoring; capital facility projects; hazard mitigation; dangerous animals and wildlife, including eagle nest identification and mapping; anadromous stream mapping and monitoring; snow lot planning and capacity assessments; City programing; landfill mapping and management; City historical records; when higher aerial resolution imagery is needed; and other non-emergency purposes in keeping with this Policy.

City departments that do not have a certified sUAS Program pilot on their staff may still benefit from the sUAS Program. These department directors may contact the Program Administrator and explain the need for sUA flight. The Program Administrator shall seek approval for novel flights from the City Manager or his/her designee and then coordinate the Operation with the requesting department director. An rPIC and a VO will be required (if the flight does not meet VO exemption criteria) and provided for the flight based on availability. No person who is not a certified sUAS Team rPIC or VO shall operate sUA controls, absent an imminent emergency occurring while the sUA is in flight. Directors are encouraged to find willing Program applicants within their own departments as pilot availability may be limited.

- I. **Increases the City's protective capabilities for persons, infrastructure, and the environment.** This Policy authorizes, and encourages, sUAS Program support in the following areas (but is not limited to):

Backcountry search and rescue; mass casualty events; vehicle, boat, or aircraft accident response and investigation; missing person reports; wildland, vehicle, or structure fire response and investigation; response to armed and/or dangerous subjects that represent a threat to self or others; lawful criminal investigations; response, investigation, and recovery of hazardous material release; and natural or manmade disaster mitigation, response, and recovery efforts.

When sUAS Program assets are needed by City emergency services departments or the City IMT, the highest-ranking person in charge of the incident may contact (or authorize another to contact) the sUAS Program Administrator, Valdez Dispatch, the Fire Chief, or the Police Chief and request an sUAS Crew. The activated Team members shall communicate the request with the Program Administrator as soon as is reasonably possible; however, they should begin their response. Inclusion of a sUAS is justified in emergency services when it: promotes life safety; aids incident stabilization; is employed to protect property and the environment; and contributes to restoring social order. Team members will be assigned to the incident according to availability and Program compliance. At minimum, one rPIC and one VO is required (if the flight does not meet VO exemption criteria) and shall be provided according to availability.

Any sUAS Team member supporting a Valdez Fire Department, Valdez Police Department or City IMT incident will maintain communication with the Program Administrator, but are under the supervision of the highest-ranking person in charge. This Policy shall remain in effect during any Valdez Fire Department, Valdez Police Department or City IMT operation or training. This Policy supports sUAS program participation in an Air Operations Branch or Operations Section of the City IMT as requested and/or needed.

- J. **Safeguards sustained sUAS Operations through, accountability, competence, and public approbation.** sUAS Team actions and decisions can have positive or negative consequences. Team members will not be held to a perfect standard. It is the responsibility of the Team, however, to comply with this Policy, to fulfill Team positions/assignments, and to accept direction from the Program Administrator and/or the highest-ranking official present during an approved sUAS Operation. Intentional violations of this Policy, or unintentional violations of an egregious nature, can undermine public confidence and trust. Team members shall demonstrate competence by maintaining certification ratings and giving their best during training exercises and actual events. sUAS Team members will not utilize program assets in Operations for hire or that are purposed to financially benefit themselves or entities unaffiliated with the COV without the written permission of the City Manager or his/her designee.

Team members are considered in good standing by maintaining current with the FAA's Remote Pilot Certification, their internal sUAS certification, completing all bi-monthly proficiency exercises, participating in the annual day/night scenario training, and by adhering to this Policy and its procedures. Team members with certifications lapsing more than 30 days or that demonstrate a clear disregard for this Policy and its procedures may be dismissed from the Team. Additionally, Team members with inadequate operational abilities that place themselves, the public, property, first responders, or other Team members at unnecessary risk may be dismissed from the Team.

Any Team member that receives a complaint specific to sUAS Operations will report the information to the Program Administrator in writing (electronic or physical). Any Team member that observes gross negligence (specific to sUAS Operations or training) by another Team member, will report the behavior to the Program Administrator in writing (electronic or physical). A pilot may be immediately prohibited to act as an rPIC or VO

by any Team member that observes in-progress acts of gross negligence; incidents of this nature shall be reported to the Policy Review Committee.

Team members will be held accountable for operational and training requirements; for the safety of themselves, the public; and for Program sustainability. Violations of this section may be referred to the Policy Review Committee for review and action; consequences may include individual dialog, remedial training, and/or dismissal from the Team. Any dismissal from the sUAS Team shall be forwarded, in writing, to the COV Human Resources department.

## **5. Limitations / Approvals / Responsibilities**

This Policy shall remain in effect until it is changed or altered. Any temporary exception or deviation from this Policy, not already expressly deliberated in the body of this Policy or its procedures, must be approved by the City Manager or his/her designee. The granted exception will be communicated by the City Manager or his/her designee to the Program Administrator, in writing. The exception shall be provided to the Documentation Specialist. Temporary exceptions only apply to a singular occasion. Each additional exception must be approved using the same process. For deviations of a repetitive nature, a change to the Policy will be considered by the Policy Review Committee. This Policy is evolutionary and is a working document. The Policy Review Committee may make changes outside of the annual review. Any alteration to this Policy shall be communicated and acknowledged, by all Team members, using the City's document management system.

## **6. DEFINITIONS AND DESCRIPTION**

- **Close Proximity Flight:** flights that require technical skills and abilities to operate near objects, persons, or animals (these flights are typically not performed by new and/or inexperienced pilots); flights near objects, persons, or animals while other distractions, uncommon to routine flight, are present; flights intended for inspection or observation, from a close distance, that represent a risk beyond what a reasonable sUAS pilot would consider innocuous or that would fail to provide reasonable reaction time to take evasive maneuvers to avoid a collision.
- **City Manager Designees:** person(s) designated by the City Manager to make decisions on his/her behalf for purposes of this Policy; the primary designees are: the City Emergency Manager (sUAS Program Administrator), the Valdez Chief of Police, the Valdez Fire Chief, the Capital Facilities Director; and, in the event these individuals are not available, others as designated by the City Manager.
- **Gross Negligence:** extreme indifference, or reckless disregard, for the safety of persons, property, or public privacy while performing any sUAS Program function.
- **Policy Review Committee:** a body of persons commissioned to review this Policy annually or as needed, make policy recommendations, approve new applicants, and address any corrective or dismissal-actions involving sUAS Team members. The Policy Review Committee is comprised of the City Emergency Manager (sUAS Program Administrator), the Valdez Chief of Police, the Valdez Fire Chief, and the Capital Facilities Director.

- **rPIC:** Remote Pilot in Command – the person responsible for the overall safe operation of the sUA.
- **sUA:** Small Unmanned Aircraft – aircraft weighing less than 55lbs and operated remotely.
- **sUAS:** Small Unmanned Aircraft System – a combination of the sUA, ground control device, rPIC, VO, and all other attachments, sensors, and associated accessories.
- **sUAS Crew:** the rPIC and VO commissioned for a sUAS Program assignment or responsibility.
- **sUAS Operation or Operation:** any flight performed to accomplish a pre-determined objective for COV government or an unaffiliated requesting jurisdiction.
- **sUAS Program or Program:** the sUAS Team, policy/procedure, administrative support, and all equipment necessary for safe flight and function.
- **sUAS Team or Team:** includes all participating members described herein, both certificated and non-certificated; this includes the following: rPIC, VO, Documentation Specialist, Program Trainer, and Maintenance Technician.
- **sUAS Training:** any flight with the express intent and purpose to teach, instruct, or familiarize Team members, or another, with sUAS Operations; these flights are typically not operations-based.
- **Sustained Flight Over People:** flight that is not intended as singular transition flight; flights performed to capture or observe data or otherwise occupy an airspace while knowingly over a person(s), vehicle(s), and/or congregation of persons; several transition flights over a person(s), vehicle(s), and/or congregation of persons.
- **Transition Flight:** continuous horizontal flight between multiple intended points (i.e. point “A” to point “B”); flights that move beyond a person(s), vehicle(s), and/or congregation of persons unassociated with the intended purpose of the flight; flight intended to move from one location to accomplish an objective at another location.
- **VO:** Visual Observer – the person assisting the rPIC by making visual observations; operating auxiliary on-board devices, sensor, and camera systems; and communicates with other team members and affiliates during flight when mission critical. The VO is also a certificated rPIC.