



Policy Number:	8300-01		
Policy Name:	Small Unmanned Aircraft System		
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Approved By:	Acting City Manager Nate Duval	Expiration Date:	NA

1. SCOPE

This Small Unmanned Aircraft System (sUAS) policy governs City of Valdez (COV, City, or Valdez) operations of the sUAS program. The sUAS program uses aerial data to facilitate informed community maintenance, growth, and capable emergency response. Participants include emergency and non-emergency response personnel in the City.

2. BACKGROUND & PURPOSE

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. This sUAS program does NOT replace existing, or future, City relationships with manned aircraft contractors. The City's sUAS program supports diverse uses. These uses include:

- **Natural and Manmade Hazards.** Valdez residents, and infrastructure, are exposed to earthquakes, avalanches, tsunamis, extreme snowfall, volcanic activity, flooding, terrorism, hazardous material release, wildfires, slope instability, glacial retreat, high winds and more.
- **City Planning, Maintenance, and Marketing.** 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 growing. Consequently, new infrastructure and maintenance are in progress for years to come. The COV is a tourist destination for worldwide travelers.
- **Routine Emergency Response to Complex Events.** Valdez Police, Fire, Emergency Medical Services (EMS), and the Backcountry Search and Rescue Team (BSRT) respond to emergencies that require special skill-sets and tools. 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's creation (2021), 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 events, some of which included: 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, 2020), 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 couples their efforts and experience with an organized sUAS program.

This policy centralizes all sUAS operations in the City under one overarching mechanism that:

- A. Ensures operational compliance with local, state, and federal statutes
- B. Upholds the U.S. Constitution, the Alaska Constitution, and applicable case-law
- C. Maintains sUAS program organizational structure
- D. Promotes a contemporary sUAS program
- E. Facilitates operational transparency for the public and City administration
- F. Establishes training and operational requirements for the sUAS team
- G. Contributes to a safe public airspace through defined risk mitigation
- H. Supports City expansion, maintenance, and marketing
- I. Increases the City's protective capabilities for persons, infrastructure, and the environment
- J. Safeguards sustained sUAS operations through, accountability, competence, and public approbation

3. POLICY

- A. **Ensures operational compliance with local, state, and federal statutes.** The sUAS program complies with local ordinances and Alaska State Statutes. The sUAS program also complies with federal regulations governing aircraft registration, pilot licensing, permitting, and aircraft operations.
- B. **Upholds the U.S. Constitution, the Alaska Constitution, and applicable case-law.** This policy supports the U.S. Constitution, the Alaska State Constitution, and known applicable case law pertaining to sUA operations.
- C. **Maintains sUAS program organizational structure.** The City Emergency Manager acts as the sUAS Program Administrator. Additional program positions support operations. Persons desiring to join the COV sUAS team complete a participant application. A sUAS team job description is held by the human resources department.
- D. **Promotes a contemporary sUAS program.** Procedures in this policy are to be informed and contemporary. An internal review of this policy and its procedures is conducted annually. Changes to this policy may be made upon review, and approval, of the City Manager or their designee.
- E. **Facilitates operational transparency for the public and City administration.** sUAS program flights are only for public purposes. sUAS flights are authorized by the City Manager or their designee. A record of sUAS flights is available to the public. Public

notification is made for all sUAS program flights conducted specifically for law enforcement purposes. Provisions were made for community involvement and public comment during initial development of this policy. A description of the sUAS program is available to the public on the City website. Procedures exist for the storage, destruction, and dissemination of data acquired during sUAS operations.

- F. **Establishes training and operational requirements for the sUAS team.** sUAS program participants comply with training requirements that include, but are not limited to: Part 107 currency, Skill and Equipment Certifications, quarterly Mission Exercises; an annual day/night scenario-based operation; an annual policy and procedure training meeting.
- G. **Contributes to a safe public airspace through defined risk mitigation.** sUAS flights employ, at minimum, two sUAS team members for the duration of any flight, unless specified in the procedural exceptions of this policy. Aircraft radios are available during flight for emergency and coordinated use with fixed-wing and rotary aircraft. All sUAS operations will yield the right-of-way to manned aircraft. sUAS flights will commence after 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 be covered by City-provided liability insurance.
- H. **Supports City expansion, maintenance, and marketing.** This policy authorizes, sUAS deployment by City departments for expansion, maintenance, and marketing.
- I. **Increases the City's protective capabilities for persons, infrastructure, and the environment.** This policy authorizes sUAS deployment 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.
- J. **Safeguards sustained sUAS operations through accountability, competence, and public approbation.** sUAS team members are to conduct themselves and sUAS operations in a manner that garners public trust and confidence. Appropriate accountability measures will be employed in this program, as needed, with the intent to maintain competence, public trust, and program sustainability.

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 (A.6.) Offenses Against the Peace and 9.12.080 (A.B.) Invasive Viewing Prohibited. Additionally, Alaska state statutes 11.61.110 (a.6.) & 18.65.900 – 18.65.909 apply. sUAS team members shall comply with City ordinances and state statutes, as pertaining to sUAS operations.

sUAS program aircraft will be registered with the FAA and appropriately labeled with the registration number. Each sUAS remote Pilot in Command (rPIC) shall obtain a Remote Pilot Certificate and maintain currency with the FAA prior to operational flights (excludes

flights performed strictly for training purposes only, when under the direct supervision of an FAA certified rPIC).

The sUAS program may also obtain Part 107 waivers and/or a Certificate of Waiver or Authorization (COA) with the FAA prior to sUAS operations performed outside of Part 107 rules. Team members must comply with the provisions of each waiver.

B. Upholds 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." sUAS program operations and pilots in the COV follow the provisions of these constitutions to the extent that exceptions exist through established case-law.

Exceptions to these constitutional provisions include actions that must be performed in haste to protect life and prevent the destruction of evidence, also known as "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. sUAS team members may use sUA technology beyond plain view when lawfully ordered to do so by a judge or magistrate or for exigent circumstances. A law enforcement officer will be present when sUAS operations are conducted under these exceptions.

sUAS pilots will take reasonable steps to safeguard personal privacy. To conduct some sUAS operations, the rPIC may be required to fly past persons and/or property not directly associated with the operation. The rPIC will navigate through that airspace (i.e. from point "A" to point "B"), in a timely manner to accomplish the necessary task.

C. Maintains sUAS program organizational structure. Under the direction of the City Manager or their designee, the Program Administrator oversees implementation of the sUAS program for all City government departments. sUAS equipment is purchased, and maintained, by the City EDM office. New equipment is coordinated with the Program Administrator. The Program Administrator will solicit interest for the following positions: Documentation Specialist, Program Trainer, and Maintenance Technician. Interested team members may submit a single-page letter of interest to the Program Administrator for the position desired. The Program Administrator fulfills the duties of vacant positions as time permits. Position responsibilities are as follows:

Documentation Specialist: Coordinates with the Program Administrator for public notification of sUAS program flights; maintains FAA records and internal pilot certifications; and manages flight logs. This position does not require an FAA Remote Pilot Certificate.

Program Trainer: Creates and administers a written certification process for program pilots using sUAS equipment, manages quarterly mission training exercises, conducts an annual day/night scenario-based training, recertifies internal pilot certifications every two years, and maintains a training log. Program trainers will receive instruction from a qualified source.

Maintenance Technician: Creates a maintenance schedule for sUAS equipment. Performs equipment inspections and conducts routine maintenance; liaisons with distributors and manufacturers for technical repairs; coordinates needed equipment purchases with the Program Administrator; and communicates any equipment changes with team members.

Operationally, there are two primary sUAS positions: the rPIC and the VO.

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, in-flight aircraft controls, compliance with this policy, and with Part 107 requirements, among other issues pertaining to safe operations. The rPIC may terminate any sUAS operation, or training flight, that they deem unsafe to persons or property or that violates the law, regardless of the instructions of higher-ranking officials present or not present.

VO: The VO supports the rPIC during the preflight checklist and raises any concerns regarding safe sUA flight. The VO assists the rPIC to maintain unaided line of sight on the sUA at all times (unless otherwise authorized by the FAA). Additionally, the VO may operate 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 necessary radio transmissions when others are not available.

Total sUAS program participants constitute the sUAS team. Persons desiring to join the team complete a participant application reviewed, approved, or denied by the Policy Review Committee. Applications are 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 their current COV position, behaviors or personal history inconsistent with responsible or illegal handling, creation, or possession of digital data, and applicant availability for operations outside the applicant's department. A job description accompanies the participant application. Program materials are stored on a COV server, in a location available to all sUAS team members.

Mutual aid flight operations may be requested by an organization outside of the COV. Team members and other City employees will refer these requests to the City Manager or their designee. 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 their designee, future operations with that organization will be coordinated by the Program Administrator, when available.

- D. **Promotes a contemporary sUAS Program.** An annual review of this policy is 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. The review committee submits any proposed changes to the City Manager in the form of a revised draft policy. When the City Manager approves policy changes, the new policy is

again made available to the public on the City website. An electronic notification of policy update shall be made to all sUAS team members.

- E. Facilitates operational transparency for the public and City administration.** A description of the sUAS program, and this policy, is posted on the EDM page of the COV website. sUAS program flights, both operational and training, shall be recorded in a flight log. The flight log includes a case number; the date and time of the flight; the approximate location; flight duration; the rPIC and crew; mission type; name of aircraft; and whether a pre-flight checklist was performed. The flight case number, date/time, location, and mission type are made available to the public on the EDM page.

Prior to flight, the rPIC contacts Valdez dispatch and requests a case number, provides a reason for the flight, and gives the location. Public notification of flights performed strictly for law enforcement purposes, will be made in real-time using an existing City notification platform intended 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.

Prior to initial approval by the City Manager (2021), this policy was presented to the City Council for community involvement and public comment in accordance with the requirements outlined in AS 18.65.901. Subsequent changes through annual and periodic reviews are approved by the City Manager or their designee.

This sUAS policy follows existing city retention requirements regarding data obtained.

- F. Establishes training and operational requirements for the sUAS team.** To conduct any sUAS operation (excluding training), team members must have first successfully obtained a Remote Pilot Certification from the FAA. The Program Trainer or designee fulfills training and operational requirements for the team and new pilots.

Training and operational requirements include:

- **Skill and Equipment Certifications.** All sUAS team members complete Skill Certifications to demonstrate general flight and equipment proficiency. These certifications are administered by the Program Trainer or designee and are renewed every two years.
- **Quarterly Mission Exercises.** All sUAS team members participate in Quarterly Mission Exercises administered by the Program Trainer or designee. Mission exercise assist team members in maintaining proficiency in specific skills such as: image and thermal data sensors, mission mapping, package delivery, new aircraft, and image analysis, amongst others.
- **Annual Day/Night Scenario-based Training.** All sUAS team members participate in an annual day/night scenario-based training. When appropriate, the scenario may involve the fire department, EMS, BSRT, police department, City IMT, or other City employees or community stakeholders.

- **Annual Policy, Procedure, and Training Meeting.** All sUAS team members attend an annual policy and procedure training meeting. The meeting occurs after the annual policy review has been completed and any final changes made. The purpose is to inform on policy or procedure changes, introduce new program aircraft or equipment, and to coordinate as a team. This meeting may be included as part of the annual day/night scenario or during a quarterly Mission Exercise, when content is limited. This meeting is attended by all sUAS team members.
- **Stick Time.** If an sUAS team member has not been issued an individual aircraft, they are encouraged to contact the Program Administrator and arrange for additional “stick time” as schedules permit, to maintain proficiency.

G. Contributes to a safe public airspace through defined risk mitigation. 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 rPIC, for the duration of any flight. sUAS flights may be performed by a rPIC, in the absence of a VO, (unless otherwise specified in this policy) when ALL the following conditions apply:

- The rPIC is a team member and has a valid Remote Pilot Certification with the FAA
- Sustained flight over people will not be performed
- The flight is less than 400’ above ground level and less than 3000’ horizontally
- The flight is not intended for close proximity (i.e. close observations or inspections to structures or objects)
- The rPIC maintains unaided visual line of sight with the sUA during flight

A VO will be provided upon the request of a rPIC, when available. The rPIC and VO shall comply with Part 107 rules, waivers, and/or a COA from the FAA.

Aircraft radios are issued to program pilots that have been issued program aircraft. Radios are also available to other pilots in the program flying program aircraft. If necessary to avoid imminent danger or a collision, or in cooperation during a coordinated mission, pilots may communicate with fixed wing and rotary aircraft using the local VHF Common Traffic Advisory Frequency (122.9) or another designated frequency. Communication should be limited and not interfere with local air traffic.

When an air operations branch exists during training or an emergency supported by an Incident Command System (ICS), the rPIC and Crew are under the direction of the air operations branch leadership.

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. An rPIC shall use all means necessary to avoid an imminent collision with persons, property, and/or other aircraft. Prior to sUAS flight the rPIC completes a pre-flight checklist. Completion of the pre-flight checklist is noted on the flight log. The sUAS program, including team members and equipment, shall be covered by liability insurance provided by the COV and/or a third party. This policy is subject to the requirements of the COV substance use and abuse policy.

sUAS program aircraft are to be operated in accordance with the manufacturer's recommendations, whenever possible. To mitigate general risk to the public and minimize program losses, the rPIC should utilize the smallest sUAS program aircraft that can accomplish 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 like model of aircraft.

The *anti-authority, impulsivity, invulnerability, macho, and resignation* attitudes described by the FAA in Part 107 rules can lead to injury and/or property damage; these attitudes should be avoided. Safe sUA flight, and program sustainability, is the responsibility of the team. Team members may be held accountable for violations of this policy, Part 107 rules, or acts of gross negligence related to program flight.

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 be provided the means to make approved purchases for corrective actions. 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 (Part 107).

H. **Supports City expansion, maintenance, and marketing.** 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 and other environmental 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 programming; landfill management; City historical records; if 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 request flights from the program in support of their department. Persons not certified as an sUAS team rPIC or VO shall not operate sUA controls, absent an imminent emergency or unless for training purposes. 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 or the City IMT, an authorized agency representative may contact the sUAS Program Administrator, Valdez Dispatch, the Fire Chief, or the Police Chief to request an sUAS Crew.

Any sUAS team member supporting a Valdez Fire Department, Valdez Police Department or City IMT incident maintains communication with the Program Administrator, to aid in continuity of operations, but is under the supervision of the official in charge. This policy shall remain in effect during any Valdez Fire Department, Valdez Police Department or City IMT operation or training.

- J. **Safeguards sustained sUAS operations through, accountability, competence, and public approbation.** Intentional violations of this policy, or unintentional violations of gross negligence, can undermine public confidence and trust. Team members can contribute to program sustainability through adherence to this policy. 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 their designee.

Team members with certifications lapsing more than 90 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. Remedial training is encouraged when appropriate.

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 that endanger persons or property. These incidents shall be reported to the Policy Review Committee.

Violations of this policy may be referred to the Policy Review Committee for review and action. Corrective actions 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 their designee. The granted exception will be communicated by the City Manager or their designee to the Program Administrator, in writing. The exception shall be provided to the Documentation Specialist. Temporary exceptions only apply to a single mission. 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 their 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 sUA flight.
- **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 specific sUAS program assignment or responsibility.
- **sUAS Operation:** any flight performed to accomplish a pre-determined objective for COV government or an unaffiliated jurisdiction.
- **sUAS Program:** the sUAS team, policy/procedure, administrative support, and all equipment necessary for safe flight and function.
- **sUAS Team:** includes all participating members described herein, both certificated and non-certificated, including the following: rPIC, VO, Documentation Specialist, Program Trainer, Maintenance Technician, and Policy Review Committee.
- **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; Numerous 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 past 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 as applicable to the mission. The VO is also a certificated rPIC.