

RESOLUTION R-5529

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND APPROVING A ONE-YEAR PUBLIC SAFETY UNMANNED AIRCRAFT SYSTEM (UAS) TEST PROGRAM FOR THE CITY OF KIRKLAND.

1 WHEREAS, the City Council approved development of a one-  
2 year Public Safety Unmanned Aircraft System ("UAS") test program for  
3 the City of Kirkland ("City") as part of the 2019-2020 budget; and  
4

5 WHEREAS, implementation of the UAS test program was  
6 delayed for reasons that included the COVID-19 pandemic; and  
7

8 WHEREAS, an \$55,000 budget appropriation from the Council  
9 was therefore carried over to the 2021-2022 budget; and  
10

11 WHEREAS, at its June 15, 2021, meeting the Council provided  
12 City staff with requested comments related to draft policies for the City  
13 and its Fire, Police, and Public Works Departments; and  
14

15 WHEREAS, as a result of those Council comments, and  
16 additional consultations with Councilmember Neal Black, additional  
17 changes have now been made to the draft policies, including those  
18 making it clearer that there must be a careful balancing between the  
19 City's public health and safety needs and the privacy and other  
20 constitutionally protected rights of community members; and  
21

22 WHEREAS, the Council is now prepared to approve such one-  
23 year UAS test program in accordance with the amended policies  
24 attached hereto as Exhibit A.  
25

26 NOW, THEREFORE, be it resolved by the City Council of the  
27 City of Kirkland as follows:  
28

29 Section 1. The one-year Public Safety Unmanned Aircraft  
30 System test program proposed by City staff, and utilizing funds  
31 previously appropriated for such purpose, is approved in accordance  
32 with the City-wide, Police Department, Fire Department, and Public  
33 Works Department policies attached hereto as Exhibit A.  
34

35 Passed by majority vote of the Kirkland City Council in open  
36 meeting this \_\_\_\_ day of \_\_\_\_\_, 2022.  
37

38 Signed in authentication thereof this \_\_\_\_ day of \_\_\_\_\_,  
39 2022.

\_\_\_\_\_  
Penny Sweet, Mayor

Attest:

\_\_\_\_\_  
Kathi Anderson, City Clerk

## City of Kirkland Unmanned Aircraft System Policy

### **Purpose and Scope**

The purpose of this general policy is to establish guidelines for City of Kirkland (City) use of an Unmanned Aircraft System (UAS), including any data collected as a result of using the UAS. Department policies may be more detailed and specific, but they shall in all events be consistent with this general policy.

### **Definitions<sup>1</sup>**

1. Small unmanned aircraft system (small UAS)
  - a. A small unmanned aircraft [under 55 pounds] and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.
2. Unmanned Aircraft (UA)
  - a. An aircraft operated without the possibility of direct human intervention from within or on the aircraft.
3. Pilot in Command (PIC)
  - a. Pilot in command means the person who:
    - (1) Has final authority and responsibility for the operation and safety of the flight;
    - (2) Has been designated as pilot in command before or during the flight;
    - and
    - (3) Holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.
4. Visual Observer (VO)
  - a. A person who is designated by the remote pilot in command to assist the remote pilot in command and the person manipulating the flight controls of the small UAS to see and avoid other air traffic or objects aloft or on the ground.
5. Certificate of Waiver or Authorization (COA)
  - a. An authorization issued by the Air Traffic Organization to a public operator for a specific UA activity.
6. Blanket COA
  - a. Allows an agency to operate in uncontrolled airspace (Class G), under 400 feet above ground, within line-of-sight between UAS and operator.

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<sup>1</sup> Definitions from 14 CFR § 1.1, 14 CFR § 107.3, and faa.gov.

## **Policy**

The UAS will be used to increase safety and efficiency, both for the public and for City personnel. All UAS operations will be conducted in strict accordance with constitutional and privacy rights and Federal Aviation Administration (FAA) regulations. This policy will govern an initial pilot program that will last approximately one year, with the goal of determining whether the City would benefit from a long-term UAS program. The initial pilot program will be funded through a 2019-2020 Service Package provided to the Fire Department but available for initial use by Fire, Police, and Public Works. The UAS will be available for emergency deployment 24 hours a day by these departments, while assigned for all general purposes to the Fire Department Battalion Chief.

## **Legal and Safety Considerations for UAS Operation**

Operators of the UAS will consider potential legal issues (e.g. unlawful search and seizure or privacy) and safety concerns during each step of the operation and adjustment accordingly.

### Before flight

Prior to each flight, the remote Pilot in Command (PIC) will consider any potential legal issues or safety concerns. While Remote Pilots need not write down each foreseeable potential legal issue or safety concern, they will keep them in mind when operating the UAS. Further, they will be able to articulate these potential issues or concerns to the Program Coordinator if requested, either before or after the flight.

Additionally, the Remote Pilot may decline to use the UAS in any given situation based on legal or safety concerns.

### During flight

During each flight, the Pilot in Command (PIC) will take care to help prevent and avoid any legal rights issues or safety risks. Such in-flight precautions may include, but are not limited to, angling cameras away from certain areas, turning off certain technology capabilities, or calling off the flight entirely. A Visual Observer (VO) will assist the Remote Pilot with these in-flight precautions.

### After flight

All flights will be recorded in a Flight Log, which will be made available to the public on a monthly basis by the Program Coordinator. Publishing the Flight Log on the City website will help provide transparency to the public by allowing concerned citizens to check if a particular UA was operated by the City. If a citizen is concerned that there may have been a legal or safety issue, they may request UAS footage from the City per the Public Disclosure Act, chapter 42.56 RCW (PRA).

If a legal issue or safety violation may have occurred, the Remote Pilot's actions will be reviewed by the Program Coordinator. If the Program Coordinator determines that a violation occurred, the Remote Pilot may be required to undergo further training and/or may be removed from flight duties.

## **Privacy and Safety Considerations for UAS Equipment**

### Privacy

The City is taking legal concerns seriously in choosing UAS equipment. The City's goal is to use the UAS in a manner that does not violate the legal rights of others. The City will demonstrate its commitment to privacy protection in part by refraining from equipping any UAS with facial recognition technology. No facial recognition technology will be added to any City-owned or operated unmanned aircraft.

### Safety

The City is also taking safety concerns seriously in choosing UAS equipment. Regarding safety, the City will limit the UAS technology when necessary to improve public safety or provide community outreach materials related to potential uses of the UAS. As a specific example, the City will never purchase or use any unmanned aircraft that are equipped with weapons.

Further, the purpose of the UAS is to increase situational awareness, which will improve safety. A few examples of how the UAS equipment can be used by the City to improve safety include the following:

- If a person is missing, a UAS can be used to quickly scan over large areas that would otherwise take a search party, daylight, or a substantial amount of time to comb through. Having an overhead perspective is particularly useful in fields and bodies of water. For example, if a boat is overturned on Lake Washington, the UAS thermal imaging camera can be used to quickly determine whether there is a person in the surrounding waters. A person's body temperature is contrasted with the water's temperature, so a person's outline becomes clearly visible on the UAS, even in the dark.
- If the police are serving a high-risk warrant, the UAS can be used to help quickly locate a suspect. This reduces the risk to the suspect because police can quickly determine the threat level and location, which means they can use appropriate methods to apprehend the suspect with greater confidence. Additionally, the use of UAS reduces the risk to the officers because they know precisely what they are dealing with and the location of the suspect. Further, the use of the UAS reduces the risk to public bystanders because the police can immediately see if the suspect attempts to flee into a public space and adjust their response accordingly.

### **Authorized Uses**

The primary goal when using the UAS is to increase both safety and efficiency while respecting the legal rights of others. During the test program period, the UAS will be used to support Fire, Police and Public Works operations.

All uses aside from the authorized uses below (such as assisting outside jurisdictions/agencies) of the UAS must be authorized in advance by a Department Director or their designee and be otherwise consistent with this and an affected department policy.

A Remote Pilot has the option to decline using the UAS in any given situation.

Examples of authorized uses may include, but are not limited to, the following:

- Water tower inspections
- Inspection after landslide, earthquake, or other geological issue
- Traffic flow monitoring at specific intersections/locations
- Beaver activity monitoring; dam/den locations, water flow, and inundation
- Traffic collision scene mapping
- Crime scene mapping
- Search and rescue
- Fire monitoring
- Ice monitoring
- Pre-emergency mitigation, such as monitoring landslide areas
- Structural inspections (e.g., after a seismic event)
- Criminal emergencies, such as a hostage situation, a fleeing felon, or an armed suspect
- High-risk search warrants
- HAZMAT situations
- Community outreach
- Training

### **Prohibited Uses**

The UAS will not be used for the following:

- To conduct a search for evidence of a crime unless (1) the search is conducted in compliance with a search warrant or court order or (2) the search is conducted in circumstances in which the law does not require a search warrant or court order. In circumstances not involving a search for evidence of a crime (e.g. risk investigation at incidents or events), UAS operators and observers shall protect privacy rights by not unlawfully recording or transmitting images of an individual where that person would have a reasonable expectation of privacy. Facial recognition software shall not be used.
- To target a person based solely on individual characteristics such as, but not limited to, race, ethnicity, national origin, religion, disability, gender, sexual orientation, or immigration status
- To harass, intimidate, or discriminate against any individual or group
- To conduct personal business of any type

The City will ensure that the UAS is not used in any prohibited way by 1) restricting authorized operators to only those who have undergone the appropriate training and have received certification; 2) only permitting flights that have been authorized by an affected Department Director or their designee; 3) holding itself accountable to the public by making publicly available monthly Flight Logs; and 4) limiting the technological capabilities of the UAS.

### **Authorized Operators**

The UAS will be operated only by personnel who have been trained and certified in the

operation of the system and who are FAA Certified Remote Pilots. Remote Pilots may be sourced from the Fire, Police, and Public Works Departments for allowable uses.

### **Program Coordinator**

The UAS Program will be overseen by a Program Coordinator within the Fire Department, who will be selected through a joint effort between Fire, Police, and Public Works. The Program Coordinator's duties will include the following:

- Working with project leads in other departments participating in this program
- Ensuring that policies and procedures conform to current laws, regulations, and best practices
- Establishing a training standard for operators that meets FAA requirements
- Overseeing the selection and training of operators
- Ensuring that all Remote Pilots possess a Remote Pilot Certificate
- Obtaining, maintaining, and updating the COA with the FAA
- Overseeing procurement and maintenance of UAS equipment
- Authorizing UAS flights
- Reviewing UAS deployments to ensure compliance with policies and operating procedures
- Reviewing Flight Logs monthly

### **Flight Logs**

All flights conducted with the UAS will be logged in a Flight Log, which will include such information as the purpose of the flight (unless required to be maintained as confidential due to a pending criminal investigation), date and time, weather (METAR & TAF), duration, and flight area. The purpose of the Flight Log is to promote transparency to the public and to help evaluate the efficacy of the program.

Remote Pilots will update the Flight Log in the City server's "H: drive" within 72 hours of a flight. The Flight Log will be posted on a monthly basis on the City of Kirkland website. The UAS Program Coordinator will review the Flight Log prior to it being posted.

### **Data Retention**

Data collected by the UAS will be retained in accordance with Washington State Records Retention Schedules and made available to requestors as required by the PRA.

By way of example, UAS video recordings made by the Police Department that do not capture an incident will be retained in accordance with state records retention schedules for 90 days from the date of recording, after which the recordings may be destroyed. For UAS Police Department video recordings that do capture an incident, the recordings will be retained until the matter is resolved and the appeals process has been exhausted, after which the recordings may be destroyed. The Police Department will comply with the PRA and Kirkland Police Department Policy 804 (Records Maintenance and Release) regarding public records disclosure requests in all instances.

By way of further example, UAS video recordings made by the Fire Department that are used in a fire investigation will be retained in accordance state retention schedules, the PRA, and

Kirkland Fire Department Policy 713.

In the absence of a PRA or other legally binding request or demand, the Remote Pilot may review and edit photographs and video recordings to trim down unnecessary images/footage captured.

**Updates to this policy**

The City will consult with community groups pursuant to Resolution R-5434 prior to making any substantive change to this policy. "Substantive change" here means a modification to a clause in this policy which would affect the City's use of the UAS. For example, altering the data retention schedule based on updated guidance from the State of Washington would not constitute a substantive change, but deleting a clause from the "Prohibited Uses" section would constitute a substantive change.

## Unmanned Aircraft System (UAS) Operations

### 613.1 PURPOSE AND SCOPE

The purpose of this policy is to establish guidelines for the use of an unmanned aircraft system (UAS) and for the storage, retrieval, and dissemination of images and data captured by the UAS, subject to the provisions of the City of Kirkland (City) Unmanned Aircraft System Policy.

### 613.1 .1 DEFINITIONS<sup>1</sup>

1. Small unmanned aircraft system (small UAS)
  - a. A small unmanned aircraft [under 55 pounds] and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.
2. Unmanned Aircraft (UA)
  - a. An aircraft operated without the possibility of direct human intervention from within or on the aircraft.
3. Pilot in Command (PIC)
  - a. Pilot in command means the person who:
    - (1) Has final authority and responsibility for the operation and safety of the flight;
    - (2) Has been designated as pilot in command before or during the flight; and
    - (3) Holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.
4. Visual Observer
  - a. A person who is designated by the remote pilot in command to assist the remote pilot in command and the person manipulating the flight controls of the small UAS to see and avoid other air traffic or objects aloft or on the ground.
5. Certificate of Waiver or Authorization (COA)
  - a. An authorization issued by the Air Traffic Organization to a public operator for a specific UA activity.
6. Blanket COA
  - a. Allows an agency to operate in uncontrolled airspace (Class G), under 400 feet above ground, within line-of-sight between UAS and operator.

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<sup>1</sup> Definitions from 14 CFR § 1.1, 14 CFR § 107.3, and faa.gov.



## 613.2 POLICY

A UAS may be utilized to enhance the Police Department's mission of protecting lives and property when other means and resources are not available or are less effective; provided, that any use of a UAS will be in strict accordance with constitutional and privacy rights and Federal Aviation Administration (FAA) regulations.

## 613.3 CONSTITUTIONAL AND PRIVACY RIGHTS

A UAS potentially involves considerations related to unreasonable searches and seizures and the right to privacy. Operators and observers shall not use a UAS to conduct a search for evidence of a crime unless (1) the search is conducted in compliance with a search warrant or court order or (2) the search is conducted in circumstances in which the law does not require a search warrant or court order. In circumstances not involving a search for evidence of a crime, operators and observers shall protect privacy rights by not unlawfully recording or transmitting images of an individual where that person would have a reasonable expectation of privacy. Facial recognition software shall not be used.

## 613.4 FAA REGULATIONS

UAS operations shall be conducted in compliance with FAA regulations.

## 613.5 PROGRAM COORDINATOR

A Program Coordinator within the Fire Department will be appointed jointly by the Fire, Police and Public Works Departments, and shall be responsible for the management and administration of the UAS program. The Program Coordinator will coordinate with a project lead within Police to help ensure that policies and procedures conform to current laws, regulations and best practices and will have the following additional responsibilities:

- Coordinating the FAA Certificate of Waiver or Authorization (COA) application process and ensuring that the COA is current.
- Ensuring that all authorized operators and required observers have completed all required FAA and department-approved training in the operation, applicable laws, and policies and procedures regarding use of the UAS.
- Developing a uniform protocol for submission and evaluation of requests to deploy a UAS, including urgent requests made during ongoing or emerging incidents. Deployment of a UAS shall require written authorization of the Chief of Police or the authorized designee.
- Developing a protocol for conducting criminal investigations involving a UAS, including documentation of time spent monitoring a subject.
- Implementing a system for public notification of UAS deployment.
- Developing an operational protocol governing the deployment and operation of a UAS including, but not limited to, safety oversight, use of visual observers, establishment of lost link procedures, and secure communication with air traffic control facilities.
- Developing a protocol for fully documenting all missions.
- Developing a UAS inspection, maintenance, and record-keeping protocol to ensure continuing airworthiness of a UAS, up to and including its overhaul or life limits.
- Developing protocols to ensure that all data intended to be used as evidence are collected in accordance with applicable laws and accessed, maintained, stored, and retrieved in a manner that ensures their integrity as evidence, including strict adherence to chain of custody requirements. Electronic trails, including encryption, authenticity certificates and date and time stamping, shall be used as appropriate to preserve individual rights and to ensure the authenticity and maintenance of a secure evidentiary chain of custody.

- Developing protocols that ensure retention and purge periods are maintained in accordance with established records retention schedules.
- Facilitating law enforcement access to images and data captured by the UAS.
- Recommending program enhancements, particularly regarding safety and information security.
- Ensuring that established protocols are followed by monitoring and providing periodic reports on the program to the Chief of Police.

#### 613.6 USE OF UAS

Only authorized operators who have completed the required training shall be permitted to operate the UAS.

Use of vision enhancement technology (e.g., thermal and other imaging equipment not generally available to the public) is permissible when in compliance with a search warrant or court order or in circumstances under which the law does not require a search warrant or court order. In all other instances, legal counsel first should be consulted.

UAS operations should only be conducted in compliance with City and Police Department policies, FAA regulations, and the terms of the COA.

#### 613.7 PROHIBITED USES

In addition to the Prohibited Uses set forth in the City's general policy (City of Kirkland: Unmanned Aircraft System Policy), the UAS video surveillance equipment shall not be used:

- To conduct random surveillance activities.
- To target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender, sexual orientation, or immigration status.
- To harass, intimidate or discriminate against any individual or group.
- To conduct personal business of any type.
- The UAS shall not be weaponized.

#### 613.8 RETENTION OF UAS DATA

Data collected by the UAS shall be retained as provided in the established records retention schedule. All such data shall be maintained in accordance with State of Washington Retention Schedules and the requirements of the Washington Public Records Act, chapter 42.56 RCW (PRA).

Specifically, UAS video recordings made by the Police Department that do not capture an incident will be retained for 90 days from the date of recording, after which the recordings may be destroyed. For UAS Police Department video recordings that do capture an incident, the recordings will be retained until the matter is resolved and the appeals process has been exhausted, after which the recordings may be destroyed.

The Police Department will comply with the PRA and Kirkland Police Department Policy 804 (Records Maintenance and Release) regarding public records disclosure requests.

# Unmanned Aircraft Systems

## 713.1 PURPOSE AND SCOPE

The purpose of this policy is to establish guidelines for the use of an unmanned aerial system (UAS) by the Kirkland Fire Department (KFD), subject to the provisions of the City of Kirkland (City) Unmanned Aircraft System Policy.

Define guidelines and requirements for safe operations of the UAS in support of KFD operations under FAA Part 107 and KFD obtained Part 107 waivers.

Establish that KFD and the City have a responsibility to not infringe on the constitutional (e.g., privacy) rights of any individual served by KFD.

Provide for the storage, retrieval and dissemination of images and data captured by the UAS.

Public Safety UAS shall be shared use equipment with Kirkland Police Department (KPD) or Public Works Department (PW).

## 713.2 DEFINITIONS<sup>1</sup>

1. Small unmanned aircraft system (small UAS)
  - a. A small unmanned aircraft [under 55 pounds] and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.
2. Unmanned Aircraft (UA)
  - a. An aircraft operated without the possibility of direct human intervention from within or on the aircraft.
3. Pilot in Command (PIC)
  - a. Pilot in command means the person who:
    - (1) Has final authority and responsibility for the operation and safety of the flight;
    - (2) Has been designated as pilot in command before or during the flight; and
    - (3) Holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.
4. Visual Observer
  - a. A person who is designated by the remote pilot in command to assist the remote pilot in command and the person manipulating the flight controls of the small UAS to see and avoid other air traffic or objects aloft or on the ground.
5. Certificate of Waiver or Authorization (COA)
  - a. An authorization issued by the Air Traffic Organization to a public operator for a specific UA activity.
6. Blanket COA
  - a. Allows an agency to operate in uncontrolled airspace (Class G), under 400 feet above ground, within line-of-sight between UAS and operator.

### **713.3 POLICY**

It shall be the mission of qualified and trained KFD personnel to use this resource to protect the constitutional and privacy rights of all individuals served by KFD.

Operations shall always be conducted in a constitutionally and legally sound and safe manner and in compliance with Federal Aviation Administration (FAA) regulations. The UAS shall be utilized to protect/save life and property and detect possible dangers.

UAS shall support first responders in the following operations:

- Trail, still/swift water and technical rescue operations
- As an airborne platform for monitoring fire/wildland operations
- Search for lost/missing individuals
- Provide operational and situational awareness to support fire ground operations
- Aid with disaster assessment and recovery operations
- Support of HAZMAT and other specialty operations
- When requested by an Incident Commander
- Fire Investigations
- Training events
- Target hazards/pre-plans

### **713.4 PROGRAM MANAGEMENT**

The UAS program will be managed and administered by a Program Coordinator within KFD chosen jointly by KDF, KPD, and PW. The Program Coordinator will report to the Deputy Chief of Administration and interact with program leads within KPD and PW. The Program Coordinator shall:

- Evaluate policies and procedures for conformance with constitutional and privacy right protections, current laws, regulations, and best practices and will have the following additional responsibilities:
  - Coordinate the FAA Certificate of Waiver or Authorization (COA) application process
  - Maintain current COA for department utilizing the UAS program
  - Verify all authorized operators and required observers have completed all required FAA and department-approved training in the use and of the UAS.
  - Implement a system for public notification of UAS deployment.
  - Recommend program enhancements, particularly regarding legal rights, safety and information security.

### **713.5 PROCEDURES**

UAS and operating equipment will be stored within and transported on Battalion 121.

Only authorized operators who have completed the required training shall be permitted to operate the UAS.

Daily and weekly operational checks shall be completed per the manufacturer's recommendations. Primary flight operations will normally occur in KFD's jurisdiction/service area.

At no time will deployment of a UAS compromise operational capabilities or firefighter safety.

All flights to operate in uncontrolled airspace (Class G), under 400 feet above ground, within line-of-sight between UAS and operator.

All flights shall be conducted within FAA Part 107 guidelines as well as under the terms of the Agency's Blanket COA.

Deployment of UAS assets and personnel for incident response shall be requested by an On-Duty Battalion Chief or Incident Commander.

The IC shall be responsible for providing the mission parameters to UAS operators.

If the Mission PIC determines that the use of the UAS would violate KFD policy or directives, the PIC shall inform the on-scene BC, Incident Commander or Senior Officer of the potential conflict along with recommendations for modifying the requested mission to conform to KFD policies and procedures.

PIC is responsible for verifying mission parameters meet UAS operational criteria. Operational considerations are:

- Proposed use of the UAS is within the capabilities of the UAS equipment and personnel
- Use of the UAS falls within the FAA regulations and City and KFD policies
- UAS can be deployed safely given current situational and weather conditions
- Night operations flight conditions shall align with "Flying at Night" FAA UAS Guidelines
- Are sufficient trained and qualified personnel available to safely operate the UAS

Deployment of a UAS shall consist of, at a minimum, one PIC and one VO.

KFD operated UAV are not normally available for automatic or mutual aid deployments. Exceptions shall be approved by the Fire Chief or their designee.

All flights, operational checks and maintenance shall be logged by the PIC in the flight log.

#### **713.5.1 PROHIBITED USE OF UAS**

Personally-owned UAS shall not be used for City or KFD deployments.

In support of the Prohibited Uses set forth in the City's general policy (City of Kirkland: Unmanned Aircraft System Policy), KFD UAS shall not be weaponized and facial recognition software shall not be used.

The KFD UAS shall not be utilized to:

- At any time that would violate FAR Part 107, issued COA, this policy, or any other FAA regulation.
- Conduct surveillance activities except when providing support for risk assessment investigations or events except in circumstances that include a search warrant or court order.
- Undertake an unlawful search and seizure or violate the privacy rights of any individual.
- Target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender, sexual orientation, or immigration status.

- Harass, intimidate or discriminate against any individual or group.
- Conduct personal business of any type.

### **713.5.2 TRAINING**

UAS Operators shall complete a KFD-approved course. Training programs shall include, as a minimum, the following components:

- FAA Ground School/Flight course
- Manufacturer recommendations for use, care and maintenance of UAS
- City and KFD policies Policy on use of unmanned aircraft systems
- Operations test for UAS/piloting skills

### **713.6 DATA STORAGE**

Any data, information, photographs, video or recordings of individuals, both in public and private, should be minimized and retained in a manner consistent with current privacy standards. All such data shall be maintained in accordance with State of Washington Retention Schedules and the requirements of the Washington Public Records Act, chapter 42.56 RCW (PRA).

Data shall be stored and catalogued by KFD incident number.

The Incident Commander of an emergency scene where a UA is deployed shall be responsible for confirming digital media and imagery including video, pictures and thermal imaging collected during missions, are downloaded to the City server for reference and records retention.

Digital/imagery data will be downloaded within twenty- four (24) hours of the end of the mission(s).

### **713.7 DOCUMENTATION**

The care, maintenance and use of UAS shall be documented in flight logs.

All flights, training or deployments shall be documented in UAS flight logs.

#### **713.7.1 INCIDENT DOCUMENTATION**

Use of UAS shall be documented as part of the incident report narrative.

The requesting IC shall document their request and considerations for the use of UAS.

The PIC shall document use, flight profile and findings as part of the narrative.

#### **713.7.2 FLIGHT DOCUMENTATION**

PIC shall be responsible for all flight documentation.

Flight documenting shall include:

- Mission/purpose
- Identify PIC and VO
- Specify Incident or training
- Duration of flight

## Unmanned Aircraft Systems – Department Policy – Public Works Department

### **PURPOSE AND SCOPE**

The purpose of this policy is to establish guidelines for the use of an unmanned aircraft system (UAS) for research, marketing, inspections, or other Public Works Department (PW) requested projects, subject to the provisions of the City of Kirkland (City) Unmanned Aircraft System Policy. UAS can be utilized in circumstances which would save time and enhance data collection, increase project awareness, save life and property, or detect possible dangers and/or liabilities that could not otherwise be seen.

Define guidelines and requirements for safe operations of the UAS in support of PW under FAA Part 107 and PW obtained Part 107 waivers.

Establish that PW and the City have a responsibility to not infringe on the constitutional (e.g. privacy) rights of any individual served by PW and the City. It shall be the intent of every PW UAS pilot to not invade a person's constitutional rights or reasonable expectation of privacy when operating the UAS.

Provide for the storage, retrieval, and dissemination of images and data captured by the UAS.

### **DEFINITIONS**

Small unmanned aircraft system (small UAS)

A small unmanned aircraft [under 55 pounds] and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.

Unmanned Aircraft (UA)

An aircraft operated without the possibility of direct human intervention from within or on the aircraft.

Pilot in Command (PIC)

Pilot in command means the person who:

- (1) Has final authority and responsibility for the operation and safety of the flight;
- (2) Has been designated as pilot in command before or during the flight; and
- (3) Holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.

Visual Observer (VO)

A person who is designated by the remote pilot in command to assist the remote pilot in command and the person manipulating the flight controls of the small UAS to see and avoid other air traffic or objects aloft or on the ground.

Certificate of Waiver or Authorization (COA)

An authorization issued by the Air Traffic Organization to a public operator (City of Kirkland or City) for a specific UA activity.

## Blanket COA

Allows an agency to operate in uncontrolled airspace (Class G), under 400 feet above ground, within line-of-sight between UAS and PIC.

### **POLICY**

It shall be the mission of qualified and trained PW personnel to use the UAS resource to document major projects and provide aerial images/videos for the purpose of educating the community on capital improvement projects and to complete varied PW inspections, while at the same time protecting the constitutional and privacy rights of every individual in the community. PW use of the UAS resource shall also be in compliance with Federal Aviation Administration (FAA) regulations.

UAS shall support PW in the following operations:

- Water, wastewater, and surface water infrastructure inspection in easements which are inaccessible or have limited access
- Inspection after landslide, earthquake, or other geological issue
- Water tower inspections
- Flooding inspections
- Traffic flow monitoring at specific intersections/locations
- Beaver activity monitoring; dam/den locations, water flow and inundation
- Mitigation sites; plant percent coverage, survivorship verification on a more regular basis
- Capital Improvement Program community outreach
- Internal meetings for rapid project updates
- Record of existing conditions for capital improvement program projects

Interdepartmental requests require the authorization of the PW Director and requesting department Director.

### **PROGRAM MANAGEMENT**

A Program Coordinator within the Fire Department shall be chosen jointly by Fire, Police, and PW, who will be responsible for the management and administration of the UAS program. A programlead within PW will report to the Deputy Public Works Director. The program lead shall:

- Coordinate with the Program Coordinator within Fire.
- Evaluate policies and procedures for conformance with current laws, regulations and best practices and will have the following additional responsibilities:
- Coordinate with citywide efforts for COA compliance
- Maintain current COA for the PW UAS program
- Verify all authorized PIC and required VOs have completed all required FAA and PW- approved training in the operation, applicable laws, policies, and procedures regarding use of the UAS.



- Implement a system for public notification of UAS deployment.
- Recommend program enhancements, particularly regarding safety and information security.

## **PROCEDURES**

Only authorized pilots who have completed the required training shall be permitted to operate the UAS.

Daily and weekly operational checks shall be completed per the manufacturer's recommendations.

At no time will deployment of a UAS compromise operational capabilities or PIC safety.

All flights to operate in uncontrolled airspace (Class G), under 400 feet above ground, within line-of-sight between UAS and operator.

All flights shall be conducted within FAA Part 107 guidelines as well as under the terms of the City's Blanket COA, if applicable.

The UAS PIC shall be responsible for providing the mission parameters to Public Works Director, or their designee.

PIC is responsible for verifying mission parameters meet UAS operational criteria. Operational considerations are:

- Proposed use of the UAS is within the capabilities of the UAS equipment and personnel
- Use of the UAS falls within the FAA regulations and City and PW policies
- UAS can be deployed safely given current situational and weather conditions
- Night operations flight conditions shall align with "Flying at Night" FAA UAS Guidelines
- Qualified personnel available to safely operate the UAS
- Deployment of a UAS shall consist of, at a minimum, one PIC. If deemed necessary within the flight parameters, visual observer/s will be utilized in accordance with FAA guidelines.

All flights, operational checks and maintenance shall be logged by the PIC in the flight log.

## **PROHIBITED USE OF UAS**

Personally-owned UAS shall not be used for City or PW deployments.

In addition to the Prohibited Uses set forth in the City's general policy (City of Kirkland: Unmanned Aircraft System Policy), PW UAS flights shall not:

- Violate Temporary Flight Restrictions, FAA Part 107, issued COA, this policy, or any other FAA regulation.
- Conduct random surveillance activities or violate the constitutional or privacy rights of any individual except pursuant to a search warrant or court order.
- Use facial recognition software or weaponized UAS of any kind.
- Target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender, sexual orientation, or immigration status.

- Harass, intimidate or discriminate against any individual or group.
- Conduct personal business of any type.

### **TRAINING**

UAS pilots shall complete PW approved training course to obtain a UA pilots license. Training programs shall include, as a minimum, the following components:

- FAA Ground School/Flight or other method of obtaining a UA pilot license
- Manufacturer recommendations for use, care and maintenance of UAS
- City and PW policy on use of unmanned aircraft systems
- Operations test for UAS/piloting skills

### **DATA STORAGE**

Any data, information, photographs, video or recordings of individuals, both in public and private, should be minimized and retained in a manner consistent with current privacy standards. All such data shall be maintained in accordance with State of Washington Retention Schedules and the requirements of the Washington Public Records Act, chapter 42.56 RCW (PRA).

Data shall be stored and catalogued by division standards within PW.

Digital/imagery data will be downloaded within seventy-two (72) hours of the end of the flight(s).

### **DOCUMENTATION**

The care, maintenance and use of UAS shall be documented in flight logs. All flights, training or deployments shall be documented in UAS flight logs.

PIC shall be responsible for all flight documentation. Flight documenting shall include:

- Flight objective/purpose
- Identify PIC and VO, if applicable
- Time and duration of flight
- Approximate location of flight
- Weather recorded prior to flight, or METAR from Paine Field Airport