



City of Seattle

Seattle Police Department

July 27, 2012

Glen Milner
3227 NE 198th St.
Seattle, WA 98155

RE: Records Request under Chapter 42.56 RCW: Unmanned Aircraft Systems

Dear Mr. Milner,

Enclosed please find the responsive records to your request for information concerning unmanned aircraft systems used by the Seattle Police Department.

Also included is our Public Disclosure Redaction Log, detailing what documents were withheld or redacted.

If you believe the information furnished has been incorrectly withheld or redacted, you may file a written appeal with the Chief of Police within ten (10) business days from the date of receipt of this letter. The appeal must include your name and address, a copy of the redacted document and a copy of this letter together with a brief statement identifying the basis of the appeal. Please mail or deliver your appeal to:

Chief of Police
610 Fifth Avenue
PO Box 34986
Seattle, WA 98124-4986

Sincerely,

John Diaz
Chief of Police

A handwritten signature in blue ink, appearing to read "John Diaz".

Alyne R. Hansen
Supervisor
Public Request Unit

JD:arh

Enclosures



Public Disclosure Redaction Log

Unmanned Aircraft PDR #2011 – 3972

Records Redacted

Document Description	Exemption	Explanation
Draft Policy 4 pages withheld	RCW 42.56.280	Record contains preliminary drafts, notes, recommendations and intra-agency memorandums in which opinions are expressed or policies formulated or recommended.
Draft Operation Manual 13 pages withheld	RCW 42.56.280	Record contains preliminary drafts, notes, recommendations and intra-agency memorandums in which opinions are expressed or policies formulated or recommended.
Draft Handout Flyer 1 page withheld	RCW 42.56.280	Record contains preliminary drafts, notes, recommendations and intra-agency memorandums in which opinions are expressed or policies formulated or recommended.
Project:UAS Redacted – RadioFrequencies	RCW 42.56.050	Record includes information non-disclosure of which is essential to effective law enforcement.

If you believe that the information furnished has been incorrectly redacted, you may file a written appeal with the Chief of Police within ten(10) business days from the date of receipt. Please include your name and address, a copy of the redacted document and a copy of this letter together with a brief statement identifying the basis of the appeal. Please mail or deliver your appeal to:

Chief of Police
610 Fifth Avenue
P.O. Box 34986
Seattle, WA. 98124

Response to Public Disclosure Request prepared by:

Alyne R. Hansen
Supervisor
Public Request Unit

Phone: (206) 684-5481



Seattle Police Department

Policies & Procedures

<i>Search and Seizure</i>	Effective Date: 7/18/2012
6.255 – Use of Unmanned Aerial Systems (UAS)	

6.255-POL

This policy applies to the use of unmanned aerial systems (UAS) by the Seattle Police Department.

1. Use of UAS Limited to Specific Circumstances

UAS will only be deployed in response to specific requests to deploy as listed below. UAS will not be used to provide random surveillance.

- UAS will only be used to gain an aerial perspective consistent with the open view doctrine.
- UAS may only be used to provide investigative support in the following circumstances:
 - Criminal investigations
 - Missing persons
 - Barricaded subjects
 - Hot pursuit of suspects
 - Hazardous materials spills
 - Natural disasters
 - Mutual aid for public safety missions
 - Specific situations with the direct authorization of the Assistant Chief of the Homeland Security Bureau

2. Homeland Security has Operational Control

3. Homeland Security Supervisor Screens Deployment

A field supervisor will screen all requests to use UAS and a Homeland Security supervisor will screen all deployments. {See 6.255 –PRO – 1 (UAS Call-Out)}

- Deployment will be made consistent with the current Seattle Police Department Unmanned Aerial System Operations Manual.

4. Only Trained Officers will Operate UAS

Training will be administered by the Homeland Security Section.

5. UAS use will be Documented via Flight Logs

Homeland Security Section will be responsible for storing the UAS flight logs and training records.

6.255 – PRO-1 (UAS Call-Out)

Action taken by:

Action:

Officer:

1. **Recognizes** the need for UAS deployment
2. **Contacts** a supervisor
 - 2a. **Explains** why a UAS is needed

Supervisor:

3. **Determines** if the situation meets the criteria for UAS deployment
 - 3a. If it does, **advises** communications to contact a UAS supervisor.

Communications:

4. **Contacts** a UAS supervisor
 - 4a. **Explains** the situation



Rob McKenna

ATTORNEY GENERAL OF WASHINGTON

1125 Washington Street SE • PO Box 40100 • Olympia WA 98504-0100

May 22, 2012

Mr. Randy Willis
Acting Air Traffic Manager
Unmanned Aircraft Systems Office
Federal Aviation Administration
490 L 'Enfant Plaza, Suite 3200
Washington, DC 20024

RE: Seattle (Washington) Police Department's Application for Operation of Unmanned Aircraft

Dear Mr. Willis:

I previously submitted a letter at the request of the Seattle Police Department (SPD) regarding an application they have pending with the Federal Aviation Administration (FAA) to operate certain classes of Unmanned Aircraft within their jurisdiction. Since that time, I have spoken with Karen Petronis of your agency and I am now aware that an additional matter needed to be addressed in my letter to process the SPD's application. As I noted in my first letter, and in order for the FAA to process this application, you require a letter from the Washington State Attorney General's Office confirming, essentially, that the SPD is a unit of government in this state. This is my purpose in writing you again today.

Washington State, through the Washington State Constitution, provides for the incorporation of municipalities. *See Washington State Constitution, Art. XI, § 10, Amendment 40B.* The City of Seattle is recognized as a First Class City by the State of Washington. This means that it has a population of ten thousand or more inhabitants, and has elected to adopt its own city charter governing the structure of city government. *Id.* "The form of the organization and the manner and mode in which cities of the first class shall exercise the powers, functions and duties conferred upon them by law, with respect to their own government, shall be as provided in the charters thereof." RCW 35.22.020.

In the City of Seattle's Charter, the (Seattle) Police Department is the recognized law enforcement body of the municipal government. *See Seattle City Charter, Art. VI, §§ 1-6.* Therefore, under 49 USC 40102(a)(41)(C), the City of Seattle is a political subdivision of the State of Washington and the requested UAS operations by the Seattle Police Department will be public aircraft operations in accordance with that statute. Operational flights performed by the

ATTORNEY GENERAL OF WASHINGTON

Randy Willis
May 22, 2012
Page 2

Seattle Police Department will be non-commercial in nature and conducted in accordance with
49 USC 40125.

Sincerely,



BRIAN T. MORAN
Chief Deputy Attorney General

BTM:kw

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO

Seattle Police Department

610 5th Avenue

P.O. Box 34986

Seattle, Washington 98124-4986

This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.

OPERATIONS AUTHORIZED

Operation of the Draganflyer X6 Unmanned Aircraft System (UAS) in Class G Airspace surface to 400 feet above ground level (AGL) within a one-quarter nautical mile (0.25 NM) radius of Discovery Park centered at 47-39-40.05N/122-25-40.03W, and Magnuson Park centered at 47-40-45.52N/122-15-02.57W, and a one-half nautical (0.50 NM) radius of Jackson Cove centered at 47-44-46.14N/122-51-54.81W under the jurisdiction of the Seattle Terminal Radar Approach Control Facility (TRACON) (S46). See special provisions.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

N/A

STANDARD PROVISIONS

1. A copy of the application made for this certificate shall be attached and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative of the Federal Aviation Administration, or of any State or municipal official charged with the duty of enforcing local laws or regulations.
3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein.
4. This certificate is nontransferable.

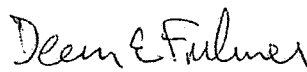
Note-This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.

SPECIAL PROVISIONS

Special Provisions are set forth and attached.

This certificate 2010-WSA-41 effective from April 15, 2011 through April 14, 2012 and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.

BY DIRECTION OF THE ADMINISTRATOR



FAA Headquarters, AJV-13

(Region)

Dean Fulmer

(Signature)

March 31, 2011

(Date)

Acting Manager, Unmanned Aircraft Systems

(Title)

ATTACHMENT to FAA FORM 7711-1**Issued To:** Seattle Police Department**Address:** 610 5th Avenue
P.O. Box 34986
Seattle, WA 98124-4986

Activity: Operation of the Draganflyer X6 Unmanned Aircraft System (UAS) in Class G Airspace surface to 400 feet above ground level (AGL) within a one-quarter nautical mile (0.25 NM) radius of Discovery Park centered at 47-39-40.05N/122-25-40.03W, and Magnuson Park centered at 47-40-45.52N/122-15-02.57W, and within a one-half nautical mile (0.50 NM) radius of Jackson Cove centered at 47-44-46.14N/122-51-54.81W under the jurisdiction of the Seattle Terminal Radar Approach Control Facility (TRACON).

Purpose: To prescribe UAS operating requirements (outside of restricted and/or warning area airspace) in the National Airspace System (NAS) for the purpose of training and/or operational flights.

Dates of Use: This Certificate of Authorization (COA) 2010-WSA-41 is valid from April 15, 2011 through April 14, 2012. Should a renewal become necessary, the proponent shall advise the Federal Aviation Administration (FAA), in writing, no later than 60 days prior to the requested effective date.

General Provisions:

- The review of this activity is based on our current understanding of UAS operations, and the impact of such operations in the NAS, and therefore should not be considered a precedent for future operations. As changes occur in the UAS industry, or in our understanding of it, there may be changes to the limitations and conditions for similar operations.
- All personnel connected with the UAS operation must comply with the contents of this authorization and its provisions.
- This COA will be reviewed and amended as necessary to conform to changing UAS policy and guidance.

Safety Provisions:

Unmanned Aircraft (UA) have no on-board pilot to perform see-and-avoid responsibilities, and therefore, when operating outside of restricted areas, special provisions must be made to ensure an equivalent level of safety exists for operations had a pilot been on board. In accordance with 14 CFR Part 91, General Operating and Flight Rules, Subpart J-Waivers, 91.903, Policy and Procedures, the following provisions provide acceptable mitigation of 14 CFR Part 91.111/113 and must be complied with:

- For the purpose of see-and-avoid, visual observers must be utilized at all times except in Class A airspace, restricted areas, and warning areas. The observers may either be ground based or in a chase plane. If the chase aircraft is operating more than 100ft above/below and or ½ nm laterally, of the UA, the chase aircraft PIC will advise the controlling ATC facility.
- In order to comply with the see and avoid requirements of Title 14 of the Code of Federal Regulations sections 91.113 and 91.111, the pilot-in-command and visual observers must be able to see the aircraft and the surrounding airspace throughout the entire flight; and be able to determine the aircraft's altitude, flight path and proximity to traffic and other hazards (terrain, weather, structures) sufficiently to exercise effective control of the aircraft to give right-of-way to other aircraft, and to prevent the aircraft from creating a collision hazard.
- UAS pilots will ensure there is a safe operating distance between manned and unmanned aircraft at all times in accordance with 14 CFR 91.111, *Operating Near Other Aircraft*, and 14 CFR 91.113, *Right-of-Way Rules*. Cloud clearances and VFR visibilities for Class E airspace will be used regardless of class of airspace. Additionally, UAS operations are advised to operate well clear of all known manned aircraft operations.
- The dropping or spraying of aircraft stores, or carrying of hazardous materials (included ordnance) outside of active Restricted, Prohibited, or Warning Areas is prohibited unless specifically authorized in the Special Provisions of this COA.

Airworthiness Certification Provisions:

- UA must be shown to be airworthy to conduct flight operations in the NAS.
- Public Use Aircraft must contain one of the following:
 - A civil airworthiness certification from the FAA, or
 - A statement specifying that the Department of Defense Handbook "Airworthiness Certification Criteria" (MIL-HDBK-516), as amended, was used to certify the aircraft or
 - Equivalent method of certification.

Pilot / Observer Provisions:

- **Pilot Qualifications:** UA pilots interacting with Air Traffic Control (ATC) shall have sufficient expertise to perform that task readily. Pilots must have an understanding of and comply with Federal Aviation Regulations and Military Regulations applicable to the airspace where the UA will operate. Pilots must have in their possession a current second class (or higher) airman medical certificate that has been issued under 14 CFR 67, Medical Standards and Certification, or a military equivalent. 14 CFR 91.17, Alcohol or Drugs, applies to UA pilots.
- Aircraft and Operations Requirements:
 - Flight Below 18,000 Feet Mean Sea Level (MSL).

- UA operations below 18,000 feet MSL in any airspace generally accessible to aircraft flying in accordance with visual flight rules (VFR) require visual observers, either airborne or ground-based. Use of ATC radar alone does not constitute sufficient collision risk mitigation in airspace where uncooperative airborne operations may be conducted.
- Flights At or Above 18,000 Feet Mean Sea Level (MSL)
 - When operating on an instrument ATC clearance, the UA pilot-in-command must ensure the following:
 1. An ATC clearance has been filed, obtained and followed.
 2. Positional information shall be provided in reference to established NAS fixes, NAVAIDS, and waypoints. Use of Latitude/Longitude is not authorized.
- **Observer Qualifications:** Observers must have been provided with sufficient training to communicate clearly to the pilot any turning instructions required to stay clear of conflicting traffic. Observers will receive training on rules and responsibilities described in 14 CFR 91.111, *Operating Near Other Aircraft*, 14 CFR 91.113, *Right-of-Way Rules*, cloud clearance, in-flight visibility, and the pilot controller glossary including standard ATC phraseology and communication. Observers must have in their possession a current second class (or higher) airman medical certificate that has been issued under 14 CFR 67, Medical Standards and Certification, or a military equivalent. 14 CFR 91.17, Alcohol or Drugs, applies to UA observers.
- **Pilot-in-Command (PIC) –**
 - **Visual Flight Rules (VFR) as applicable:**
 - The PIC is the person directly responsible for the operation of the UA. The responsibility and authority of the pilot in command as described by 14 CFR 91.3 (or military equivalent), applies to the UAS PIC.
 - The PIC operating a UA in line of sight must pass at a minimum the required knowledge test for a private pilot certificate, or military equivalent, as stated in 14 CFR 61.105, and must keep their aeronautical knowledge up to date.
 - There is no intent to suggest that there is any requirement for the UAS PIC to be qualified as a crewmember of a manned aircraft.
 - Pilots flying a UA on other than instrument flight plans beyond line of sight of the PIC must possess a minimum of a current private pilot certificate, or military equivalent in the category and class, as stated in 14 CFR 61.105.
 - **Instrument Flight Rules (IFR) as applicable:**
 - The PIC is the person directly responsible for the operation of the UA. The responsibility and authority of the pilot in command as described by 14 CFR 91.3 (or military equivalent), applies to the UAS PIC.
 - The PIC must be a certified pilot (minimum of private pilot) of manned aircraft (FAA or military equivalent) in category and class of aircraft flown.
 - The PIC must also have a current/appropriate instrument rating (manned aircraft, FAA or military equivalent) for the category and class of aircraft flown.

- **Pilot Proficiency – VFR/IFR as applicable:**
 - Pilots will not act as a VFR/ IFR PIC unless they have had three qualified proficiency events within the preceding 90 days.
 - The term “qualified proficiency event” is a UAS-specific term necessary due to the diversity of UAS types and control systems.
 - A qualified proficiency event is an event requiring the pilot to exercise the training and skills unique to the UAS in which proficiency is maintained.
 - Pilots will not act as an IFR PIC unless they have had six instrument qualifying events in the preceding six calendar months (an event that requires the PIC to exercise instrument flight skills unique to the UAS).

- **PIC Responsibilities:**
 - Pilots are responsible for a thorough preflight inspection of the UAS. Flight operations will not be undertaken unless the UAS is airworthy. The airworthiness provisions of 14 CFR 91.7, Civil Aircraft Airworthiness, or the military equivalent, apply.
 - One PIC must be designated at all times and is responsible for the safety of the UA and persons and property along the UA flight path.
 - The UAS pilot will be held accountable for controlling their aircraft to the same standards as the pilot of a manned aircraft. The provisions of 14 CFR 91.13, *Careless and Reckless Operation*, apply to UAS pilots.

- **Pilot/Observer Task Limitations:**
 - Pilots and observers must not perform crew duties for more than one UA at a time.
 - Chase aircraft pilots must not concurrently perform either observer or UA pilot duties along with chase pilot duties.
 - Pilots are not allowed to perform concurrent duties both as pilot and observer.
 - Observers are not allowed to perform concurrent duties both as pilot and observer.

Standard Provisions: These provisions are applicable to all operations unless indicated otherwise in the Special Provisions section.

- The UA PIC will maintain direct two-way communications with ATC and have the ability to maneuver the UA per their instructions, unless specified otherwise in the Special Provisions section. The PIC shall comply with all ATC instructions and/or clearances.
- If equipped, the UA shall operate with an operational mode 3/A transponder, with altitude encoding, or mode S transponder (preferred) set to an ATC assigned squawk.
- If equipped, the UA shall operate with position/navigation lights on at all times during flight.
- The UA PIC shall not accept any ATC clearance requiring the use of visual separation or sequencing.

- VFR cloud clearances and visibilities for Class E airspace will be used regardless of class of airspace the UAS is operating in, except when operating in Class A airspace where 14 CFR Part 91.155 will apply.
- Special VFR is not authorized.
- Operations (including lost link procedures) shall not be conducted over populated areas, heavily trafficked roads, or an open-air assembly of people.
- Operations outside of restricted areas, warning areas, prohibited areas (designated for aviation use) and/or Class A airspace may only be conducted during daylight hours, unless authorized in the Special Provisions section.
- Operations shall not loiter on Victor airways, Jet Routes, Q Routes, IR Routes, or VR Routes. When necessary, transit of airways and routes shall be conducted as expeditiously as possible.
- Operations conducted under VFR rules shall operate at appropriate VFR altitudes for direction of flight (14 CFR 91.159).
- The UA PIC or chase plane PIC (whichever is applicable) will notify ATC of any in flight emergency or aircraft accident as soon as practical.
- All operators that use GPS as a sole source, must check all NOTAM's and Receiver Autonomous Integrity Monitoring (RAIM). Flight into GPS test area or degraded RAIM is prohibited without specific approval in the special provisions.
- At no time will TCAS be used in any mode while operating an unmanned aircraft.
- Only one UA will be flown in the operating area unless indicated otherwise in the Special Provisions.
- A copy of this COA will be maintained on site by the PIC or designated representative.
- The Seattle Police Department and/or its representatives, is responsible at all times for collision avoidance with non-participating aircraft and the safety of persons or property on the surface with respect to the UAS.

Special Provisions:

1. In the event of a lost link, the UAS pilot will immediately notify Seattle TRACON (S46) at (206) 214-4657 state pilot intentions, and comply with the following provisions:
 - In the event of lost link and the Pilot in Command (PIC) loses communication and subsequent control of the aircraft, the aircraft autopilot will enter a fail-safe mode within one second of the condition being detected and "Auto land", with the aircraft placing itself in a stationary hover and begin a slow decent to landing within the perimeter.
 - If lost link occurs within a restricted or warning area, or the lost link procedure above takes the UA into the restricted or warning area – the aircraft will not exit the restricted or warning areas until the link is re-established.
 - The UA lost link mission will not transit or orbit over populated areas.

- When outside of restricted/warning area airspace, lost link programmed procedures will avoid unexpected turn-around and/or altitude changes and will provide sufficient time to communicate and coordinate with ATC.
 - Lost link orbit points shall not coincide with the centerline of Victor airways.
2. The Seattle Police Department has made its own determination on the airworthiness and safety of the Draganflyer X6 UAS. The Draganflyer X6 must be operated in strict compliance with all manufactures' specifications and recommendations as well as provisions and conditions contained in the most recent Airworthiness Certification Statement dated June 25, 2010, including its reference to MIL-HDBK-516 B. Any changes or revisions to the current Airworthiness Certification Statement will be provided to Unmanned Aircraft Program Office (AFS-407) for review.
 3. It is the responsibility of the proponent to cordon off and control access to the takeoff and landing zones and the emergency recovery/landing areas to include the route of flight between them for the duration of flight operations.
 4. Flight operations conducted at Discovery Park must maintain a standoff distance of at least one quarter mile (0.25) nautical mile from the radar facility located to the east of the operating area.
 5. The PIC shall not engage in any activity not directly related to flying the aircraft.
 6. The PIC must conduct a pre-takeoff briefing which includes a briefing on the contents of the COA, the maximum altitudes to be flown, initial heading, frequencies to be used, lost link procedures, the parameters for the use of a ditch point, a risk analysis for the flight being flown, emergency procedures, communications with the SEA TRACON, CTAF frequencies to be monitored for training operations at Discovery Park and Magnuson Park, and a briefing on the expected duration of flight and battery power remaining including reserve for the UA.
 7. Sterile cockpit procedures must be observed during all phases of flight.
 8. The PIC is responsible for, and must take the appropriate actions to ensure that the Draganflyer X6 UA remains within the defined training area.
 9. A frequency integrity check must be conducted prior to the launch of the Draganflyer X6 UAS.
 10. All crewmembers including the PIC and visual observers must receive training from a qualified instructor who has, at all times, operational control of the UA.
 11. The use of cell phones or other telephonic communication is restricted to the operational control of the UA, and any required communications with ATC.

12. Daisy chaining Visual Observers is prohibited.
13. The holder of this COA, or delegated representative, is responsible for halting or canceling activity in the confinement area if, at any time, the safety of persons or property on the ground or in the air is in jeopardy, or if there is a failure to comply with the terms or conditions of this waiver.
14. The Seattle TRACON may terminate or delay the provisions of this COA at any time it deems a sufficient level of safety for operations is not met.
15. The Seattle Police Department will contact Seattle TRACON at the telephone numbers listed above, 30 minutes prior to commencing flight operations providing the NOTAM number and a request for the non-transponder authorization for operations within the Seattle-Tacoma Airport (SEA) CFR 91 Appendix D (Mode C Veil). Additionally, the Proponent will notify the Seattle TRACON upon the conclusion of operations.
16. Operation within the CFR 91 Appendix D airspace is approved without a transponder, based on the Independent flight termination feature on this Draganflyer X6.
17. The proponent will comply with AIM paragraph 4-1-9 c. 2. Recommended Traffic Advisory Practices by monitoring/communicating on the appropriate CTAF for the Seaplane Bases (Seattle (0W0), Kenmore (W55), and Kenmore INC (S60)) during all operations.
18. Special provisions 1, 14, 15, 16, and 17 will be used in lieu of maintaining direct two-way Communications with ATC (Standard Provisions, bullet one).

NOTAM: A distance (D) Notice to Airmen shall be issued when UA operations are being conducted. This requirement may be accomplished through your local base operations or NOTAM issuing authority. You may also complete this requirement by contacting Flight Service Station at 1-877-4-US-NTMS (1-877-487-6867) not more than 72 hours in advance, but not less than 48 hours prior to the operation and provide:

- Name and Address of pilot filing NOTAM request
- Location, Altitude or the operating Area
- Time and nature of the activity

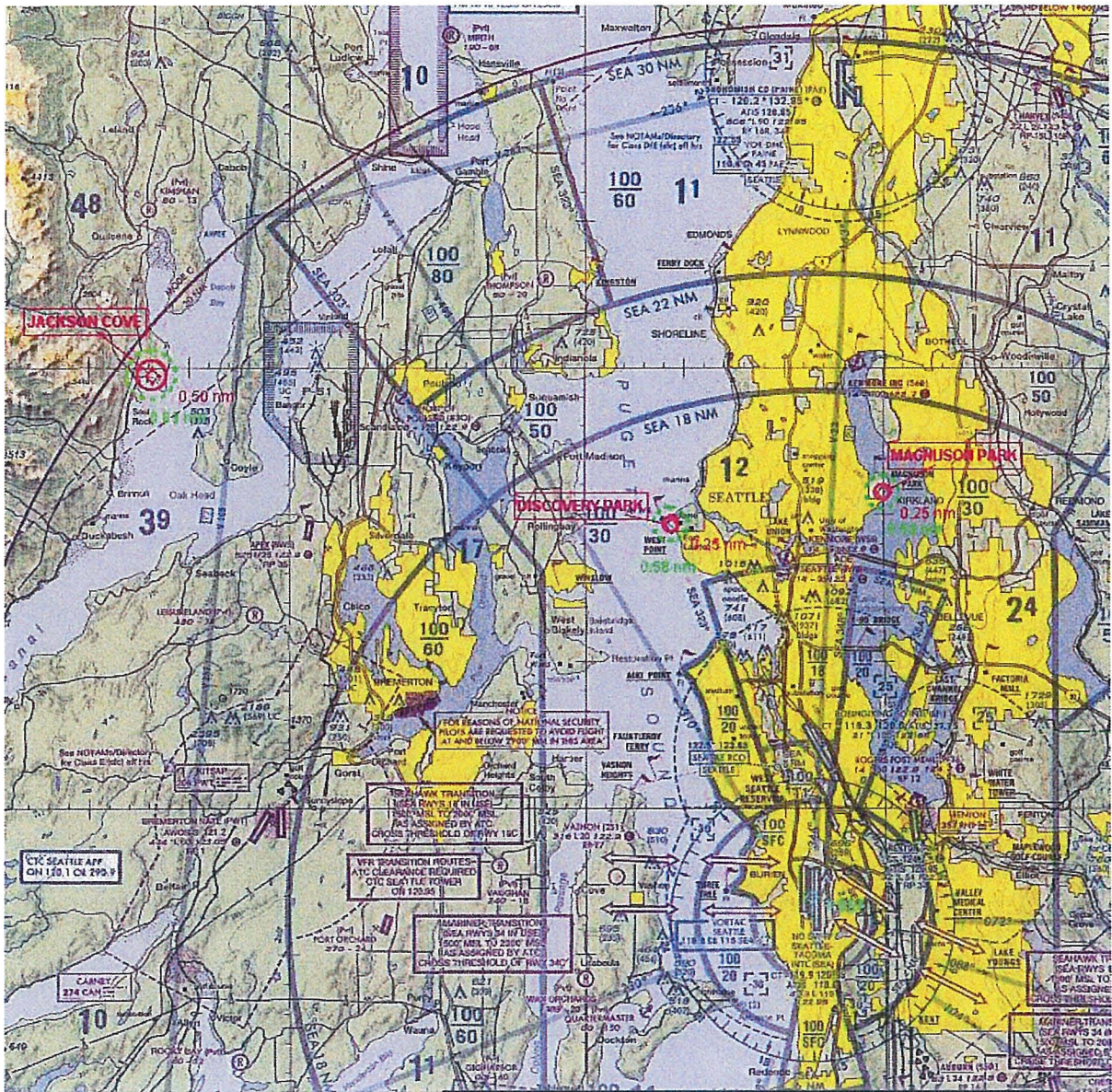
NOTE FOR PROPONENTS FILING THEIR NOTAM WITH DoD ONLY: This requirement to file with the AFSS is in addition to any local procedures/requirements for filing through DINS. The FAA Unmanned Aircraft Systems Office is working with the AFSS, and to eliminate the requirement to file a NOTAM with both the AFSS and DINS in the near future.

Incident / Accident and Normal Reporting Provisions: The following information is required to document routine and unusual occurrences associated with UAS activities in the NAS.

- The proponent for the COA shall provide the following information to Donald.E.Grampp@faa.gov on a monthly basis:
 - Number of flights conducted under this COA.
 - Pilot duty time per flight.
 - Unusual equipment malfunctions (hardware/software).
 - Deviations from ATC instructions.
 - Operational/coordination issues.
 - All periods of loss of link (telemetry, command and/or control)
- The following shall be submitted via email, COA online or phone (202-385-4542, cell 443-569-1732) to Donald.E.Grampp@faa.gov **within 24 hours and prior to any additional flight under this COA:**
 - All accidents or incidents involving UAS activities, including lost link.
 - Deviations from any provision contained in the COA.

This COA does not, in itself, waive any Federal Aviation Regulation (FAR) nor any state law or local ordinance. Should the proposed operation conflict with any state law or local ordinance, or require permission of local authorities or property owners, it is the responsibility of the Seattle Police Department to resolve the matter. This COA does not authorize flight within Special Use Airspace without approval from the Using Agency. The Seattle Police Department is hereby authorized to operate the Draganflyer X6 Unmanned Aircraft System UAS in the operations area depicted in "Activity" above and attachment 1 below.

Attachment 1





March 27, 2012

N12.38.1

Opportunity for Advancement #12-2012 & 13-2012

Please see attached City Wide opportunity for advancement.

Lynnette DeShaw
Human Resources Section
Employee Development / Class Comp
4-5458

N12.38.2

Unmanned Aerial System Operators/Observers Needed

The Seattle Police Department Special Operations Bureau is compiling a list of interested sworn volunteers to fill the positions of an Unmanned Aerial System (UAS) Operator (Pilot in Command) and/or Observer. We are preparing for the future expansion of our current UAS program. Persons interested should be able to respond within their precinct of assignment or region wide, in the event of a large incident.

The Seattle Police Department currently has a Certificate of Authorization (COA) to conduct limited training and evaluation flights within the City of Seattle and a small rotary wing aircraft. The expectation is that the FAA will significantly increase the area where we can operate in 2012. Because of that, we are preparing to train and certify additional personnel to operate our current UAS as well as future systems.

Sworn personnel who have previous flying or RC experience are encouraged to apply. However, It is not a requirement to have a pilot's license or previous experience as a pilot (rotorcraft or fixed wing). The Department will pay for all required training and examinations for selected personnel.

The FAA requires any operation of a UAS to have a minimum of an Operator and an Observer. The Operator is the final authority during the UAS mission and carries the responsibilities of all aspects of flight. All UAV operations are flown under visual flight rules and require that the Operator and Observer must maintain visual contact of the aircraft at all times. UAS operations will be conducted with safety as the top priority and follow all pertinent FAA regulations.

General qualifications:

- Outstanding attendance record
- Recommendation from chain of command



- Be approved by your chain for a minimum of 8hrs. monthly training
- Ability to follow strict guidelines and procedures

Minimum qualifications for UAS Observers:

- Pass an FAA Class II medical examination (requirements attached)
- Pass the internal SPD UAS Observer training and qualification program

Minimum qualifications for UAS Operators:

- Pass an FAA Class II medical examination (requirements attached)
- Attend an FAA approved rotorcraft private pilot ground school
- Pass the FAA rotorcraft private pilot examination
- Pass the internal SPD UAS operator training and qualification program

Interested applicants should submit a memo of through their chain of command. The memo must contain a statement that you have read the minimum requirements for obtaining an FAA Class II physical and to the best of your knowledge at the time of your application that you meet these minimum requirements. Please direct memos and any questions to Officer Reuben Omelanchuk or Lieutenant Greg Sackman in the Homeland Security and Metro Special Response Section.

FAA Class II Airman Medical Requirements include some of the following requirements:

- Eyesight (corrected or uncorrected): 20/20 for distant vision, 20/40 near vision, perceive colors, normal fields of vision
- Ear, Nose, Throat: a hearing test, equilibrium standards
- Neurological: No epilepsy, loss of consciousness or nerves, or seizures
- Cardiovascular: No myocardial infarction, angina pectoris, coronary heart disease, cardiac valve replacement, heart replacement.
- General Medical Condition: general good health

For more information regarding the FAA Medical Certificate, please visit the following links:

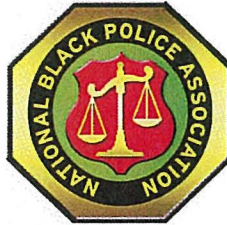
[Medical Certification Frequently Asked Questions](#)

[Electronic Code of Federal Regulations](#)

Lieutenant Greg Sackman
Arson/Bomb/CBRNE Unit



N12.38.3



NATIONAL BLACK POLICE ASSOCIATION

WESTERN REGION

Spring 2012

Semi-Annual
Education and Training Conference

The Black Law Enforcement Association of Washington (B.L.E.A.W.) will be hosting the National Black Police Association-Western Region Semi-Annual Education and Training Conference. This conference is open to all criminal justice employees (sworn and non-sworn).

Conference Theme:

“Weathering the Storm, Standing Firm in the Face of Adversity”

When: **April 25-29, 2012**

Where: **Embassy Suites (3225 158th Ave. Bellevue, WA)**

Registration/Tuition Fee: **\$250 (before April 18, 2012) / \$300 (on site)**

Seattle Police Relief Association members are eligible for tuition reimbursement of up to \$200 per year.

Seattle Police Dept. has set aside additional training funds to offset a portion of the registration fees.



See attachments for registration and SPRA reimbursement forms.

Contact Sgt. Bryan Clenna (bryan.clenna@seattle.gov) or Ofc. Will Witt (william.witt@seattle.gov) for additional information.

Mickey Bannister-Mingo
Finance & Administrative Services

N12.38.4

In Memoriam

Clayton E. Bean #1518, retired Seattle Police Assistant Chief passed away on March 15, 2012. He was 85 years of age upon passing.

Upon graduation from Queen Anne High, he joined the US Navy. After discharge in 1947 he married Joan. Seven years later Clay joined the Department on January 4, 1954 as a Provisional Patrolman. Two weeks later he was hired as a Regular. Clay was musically inclined so he also joined the Department's band, playing the sax and clarinet. He worked West Central Patrol with his partner Neil Moloney (who went on to be an Assistant Chief with the department and later Chief of Police at the Port of Seattle PD and Chief of the Washington State Patrol.) The two worked together and studied together for years. Clay was promoted to Sergeant after only seven years on the force. This was extremely quick for those times. He was assigned to the Seattle Center Detail in preparation for the 1962 World's Fair. This was a new command that he had to organize to handle crowd control, dignitary security and ensuring the peace during a nineteen hour operation, 24/7. Several million visitors attended the Fair, one of the last to actually make a profit for the host city. When the fair ended, Clay stayed at the Seattle Center which was still very busy with all the sporting events, cultural entertainment and the new phenomenon of rock concerts. He left the Center in 1966. Bob DeForesst was Clay's replacement. He returned to Police Headquarters in the Planning and Research Unit for a year before making Lieutenant. Then Clay was assigned to Communications. At this time the Department had a small radio room on the fourth floor which was scientifically equipped with a short, revolving clothes line between the phone operators and the radio dispatchers to attach the call information ticket to ensure accurate incident dispatching. Clay oversaw the moving of Communications to the second floor with more dispatching consoles, call takers, digital records keeping, and a Command Center. This 911 facility



served the Department well over the next thirty years during UOs, including the 1999 WTO Battle in Seattle.

In late 1970 Clay transferred to the State Academy at Providence Heights as the Director of Training to work for his old friend Neil Moloney. The Academy then moved to the SPD Range and was housed in portable classrooms, and the trailer offices that are still there today. While at the Academy he was promoted to Captain on April 28, 1971. Two and a half years later he was promoted to Major and assigned to the Metro Division. In two more years he was made Assistant Chief, in charge of Special Operations, then Administrative Services. As the Fitzsimons era began, Clay retired with 25 years and 3 months of service on March 31, 1979

Joan, Clay's wife of 61 years, preceded him in death. He is survived by his three daughters, Marsha L. Crockett, Andrea L. Christman, Patricia L. Ostrander; seven grandchildren and three great-grandchildren.

Memorial service will be held at Evergreen-Washelli Funeral Home in Seattle, Friday April 13, 2012 at 12:00pm. In lieu of flowers, memorials may be made to Providence Hospice.

Dan Oliver
Executive Secretary
Seattle Pension Office

N12.38.5

Help for Homeowners and buyers

All City of Seattle employees are eligible for big savings through the Hometown Home Loan Program from HomeStreet Bank. Created in partnership with the Seattle Police and Fire departments in 1994, it offers significantly reduced loan and escrow fees and free homeownership education – whether you're purchasing or refinancing.

- Take advantage of historically low rates
- The **Home Affordable Refinance Program (HARP)** can help underwater homeowners refinance and lower their payments!
- Homebuyers can triple their savings with the Home Advantage Program

For more information, contact HomeStreet's Affinity Lending Center at 206-628-0207 or visit www.homestreet.com/CityofSeattle. All Affinity Loan Officers are noncommissioned and here to help you. HomeStreet Bank is an equal housing lender.



If your department would like to schedule a one-hour seminar on homebuying, refinancing, or improving credit, please contact Leigh Bezezekoff at HomeStreet Bank at hthl@homestreet.com.

Mickey Bannister-Mingo
Finance & Administrative Services

N12.38.6

Special Les Miz Presale

**PRESALE ONLY for
City of Seattle Employees, Seattle Housing Authority, Library, Health Department -
King County, temporary employees, volunteers, retired city employees, family and
friends!**



Direct Connect Partner
City of Seattle



We invite you and your co-workers to join us for *Les Misérables*!

Visit the link below to purchase tickets using a special pre-sale offer beginning at 8:00 PM tonight.

<http://www.5thavenue.org/promo/?CASTLE>

Please contact me with any questions!

See you at The Theatre,

Jeff Carpenter | Junior Marketing Associate – Communications

The 5th Avenue Theatre | 1308 5th Avenue | Suite 735 | Seattle, WA 98101

Direct Line: 206-971-7909 | jcarpenter@5thavenue.org

About Les Misérables

Last August, box office records were shattered when over 50,000 people experienced *Les Misérables*. Now, back by popular demand, *Les Miz* returns to The 5th Avenue Theatre for 2 weeks only, from June 27- July 7, 2012.

Mickey Bannister-Mingo
Finance & Administrative Services

Project: UAS

Project Goals:

1) Selection of Trainers

- A) Determine who are going to be trainers
- B) Trainer candidates will then submit to a class 2 FAA Physical
- C) Upon passing physical, candidates will complete on-line Private Pilot Ground Training Course
- D) After completion of course, candidates will then be required to pass the FAA Basic knowledge test for private pilots.
- E) Trainers will then be sent to complete one day training with the airframe manufacturer
- F) Trainers will also function as observers (FAA COA requirement)

2) Operations

- A) Determine conditions of operations/ Safety requirements
- B) Identifying mission types and uses for the airframe.
- C) Determine a maintenance schedule for the airframe and appropriate documentation of any maintenance performed (FAA requirement).
- D) Informing the FAA in regards to crash involving the airframe

3) Pilot Selection

- A) All possible pilots must fulfill trainer pre-requisites
- B) Candidates will then be assigned a trainer
- C) Candidates will have to demonstrate competence with the airframe and all electronic systems used in flight.
- D) Once passing all requirements Candidates will be allowed to operate the airframe in a mission capacity.
- E) Trainers will certify all candidates that fulfill all requirements

4) Operator currency

- A) Maintain on-going training with the airframe and associated systems
- B) Operator must have min 20 hrs of flight time a year, in order to continue operating the airframe. (FAA requirement)
- C) Maintain operator flight logs (FAA COA requirement)
- D) Class 2 physical must be completed yearly for every operator.
- E) Pilots must be re-certified by trainers yearly

5) Agency Competence

- A) Keep logs of all flights of the airframe and observations of flight
- B) Enforce flight rules and conditions of operation
- C) Demonstrate the airframe can be safely operated
- D) Complete FAA review of performance
- E) Obtain regular use COA after one year

SPD COA

(Flight Operations Procedures)

Executive Summary:

The objective of our program is to create a higher standard of safety for members of our community by utilizing the Draganflyer X6 Unmanned Aerial Vehicle in support of numerous Law Enforcement related functions which could include but are not limited to:

- 1) Crash site related to interstate transport of hazardous materials
- 2) Crash site related to railroad transport of hazardous materials
- 3) Search & Rescue operations
- 4) Tactical support of Law Enforcement operations

Operational Summary:

Operation of the Draganflyer X6 will be utilized in "Class G" airspace at or below 400 feet AGL. The aircraft will be used for flight training, operational testing and payload testing.

The operation will launch, remain within, and recover from City of Seattle controlled and owned property. Duration of each flight will be approximately 15 minutes, will not exceed a ceiling of 400 feet AGL, and the same location will be used throughout the year long COA for training purposes. The city property mentioned above provides an ideal controlled atmosphere for training. The training ground contains hilly terrain, non-occupied vehicles, and buildings. The COA approved area will aid in training without risk to people, property or wildlife.

Airworthiness Certification Statement:

Public Aircraft:

The Draganflyer X6 aircraft is a public use aircraft which is flown, owned and operated by the Seattle Police Department, located in the City of Seattle, WA.

The City acknowledges and accepts all responsibility for insuring airworthiness of the aircraft.

The Seattle Police Department has determined the Draganflyer X6, UAS, is airworthy, when used in accordance with the manufacturer's recommendations. The Department of Defense Handbook was also utilized in reviewing the airworthiness of the Draganflyer X6.

Methodology for determination of crafts airworthiness:

Airworthiness was based upon referencing of the MIL-HDBK-516 B. Criteria applicable was reviewed and related to the small unmanned rotary aircraft. In reviewing, the handbook and 14CFR Part 27; a set of criteria applicable to the Draganflyer X6 was developed.

The above mentioned criterion was used to review the airworthiness of the Draganflyer X6.

Pilot/ Observer Provisions:

Pilot Qualifications: UA pilots will have an understanding of and comply with Federal Aviation Regulations and Military Regulations applicable to the airspace where the UAS will operate. Pilots must have in their possession a current second class (or higher) airman medical certificate that has been issued under 14CFR 67, Medical Standards and Certification. 14CFR 91.17, alcohol or drugs, applies to UA pilots. UA Pilots will have completed a recognized private pilot ground school course and have passed FAA Private Pilots basic knowledge test.

Observer Qualifications: Observers will have meet all pilot qualifications, with the exemption of the Private Pilot Ground School requirement.

Emergency Procedures:

In the event of an emergency, the emergency situation will be broadcast by the Observer to presiding Ground Personnel. The broadcast will indicate the nature

of the emergency, any immediate action plans/directives and /or request for resources.

All personnel involved with the mission will have a form(s) of communication which can quickly gain access to emergency and medical related services; should they be needed which are but not limited to VHS radio, cell phone etc.

As all flight operations will be conducted by Seattle Police Department staff members the full resources of the Office are available in response to any given emergency that may arise.

Of greatest importance is ground personnel and civilian safety. It is the responsibility of the Ground Personnel to protect any civilian/civilians that may come in contact with the aircraft, civilian property and themselves.

In the event of an emergency landing in a safe zone, whether the X6 is flown there by direct flight input from the PIC or is operating in its auto land mode, the Observer will communicate the situation to the ground crew and point out any hazards to the PIC. The Observer will always collocate, within speaking distance, with the PIC mitigating the possibility for loss communications between PIC and Observer.

The Draganflyer X6 constantly monitors Link signal strength with the control unit. Within a second detecting lost Link by the Draganflyer X6 the aircraft will enter a fail-safe condition and "auto land". The aircraft will place itself in a stationary hover and begin a slow descent. Through feedback via on-board inertia sensors, when the aircraft touches down and lands, the aircraft motors/rotors are powered off.

Should the auto land feature fail the observer will contact Grand Junction tower and inform them of the situation. Last known altitude, heading and airspeed will be provided. The event will be broadcasted via dispatch and the Draganflyer X6 will be tracked from the ground via an emergency vehicle. Any changes in heading will be relayed to Grand Junction Tower to determine possible conflict with any local traffic. Greatest possible flight time for the X6 is 18 minutes and maximum gross takeoff weight is 53oz.

The nature of the emergency will be clearly communicated to Incident Command. A detailed report of the incident, to include photos, will be completed as soon as reasonably possible and forwarded to the Incident Supervisor for review and dissemination to necessary parties.

Launch and Recovery

The Draganflyer X6 Helicopter is intended to be operated from 0'AGL to no greater than 400'AGL. The procedure for a typical Launch and Recovery is described below:

Aircraft Launch:

1. Physically inspect aircraft to insure air worthiness.
2. Select an open area clear of immediate obstacles
3. Clear the area of any unnecessary/unauthorized personnel
4. Pilot in Command (PIC) and Observer scan the area and sky to confirm take-off conditions are clear.
5. DX6 Transmitter's antenna is checked to be secure and transmitter is powered on.
6. DX6 aircraft is placed on the ground and powered on.
7. DX6 Transmitter is "logically" locked and joined to aircraft, accepting the aircraft serial number and locking communications.
8. DX6 Transmitter clearly displays aircraft telemetry. PIC confirms battery voltages, signal strength and quality of GPS.
9. PIC performs RF range check
10. PIC clearly announces the "arming" of the aircraft meaning - the motor control circuits are enabled.
11. Observer and PIC once again recheck the immediate area and sky
12. If clear for take-off, the PIC clearly announces "Take-off" and engages motors
13. PIC brings aircraft into a stable hover at approximately 6' out of ground effect and checks all flight control, scans battery voltages and data-link signal strength.
14. PIC and Observer fly the mission

During flight, both the observer and PIC scan the sky and note any aircraft, aerial obstacles or weather that could cause a safety hazard. PIC constantly

scans telemetry data from the aircraft monitoring battery voltages, RF signal quality, altitude, attitude and GPS data.

Aircraft Recovery:

Because we're talking about a Vertical Take-off and Landing (VTOL) the landing/recovery is typically taken place at the same location as take-off.

1. The PIC and observer clear the area of any unnecessary people
2. PIC and observer discuss the approach and scan the area
3. PIC clearly announces "landing"
4. Aircraft altitude is reduces as the aircraft reduces speed and approaches landing area.
5. Aircraft transitions into hover over target landing spot and aircraft lands
6. Motors are turned off
7. DX6 Helicopter is powered off
8. DX6 Transmitter is powered off
9. DX6 power pack is removed from aircraft

At this point the aircraft is either put away completing the mission or a new battery pack is installed. The same procedure is followed for take-off and continuation of the mission at hand.

Lost Link Procedures:

The Draganflyer X6 Helicopter has been designed to deal with various fail-safe scenarios such as a lost data link or loss of communications. As pointed out in this section its one thing to have an aircraft that can deal with this issue and it is also very important to have complimentary crew procedures.

Before going into the fail safe procedures, first a few words about the aircraft transmitter/controller.

The aircraft transmitter is specifically designed for the X6 aircraft and features a direct sunlight viewable touch screen display. In addition to the visual display the transmitter provides audio tones and alerts to direct the pilots attention to the screen and/or alert condition.

Illustrated below is the basic screen that provides indications and status on the

essential health of the overall system. From left to right on the display the system indicates transmitter battery health, aircraft battery health, data link quality, GPS satellites and quality of GPS.

Aircraft Fail Safe procedures:

Before take-off the Pilot in Command (PIC) and observer look over the immediate area or use Google Earth imagery to determine designated "safe zones" for an emergency landing. These areas are agreed upon and other ground crew members involved with the mission are briefed on the location and circumstances for which they will be used.

Aircraft lost data link procedures:

The DX6 was created to allow the PIC and flight crew to proactively manage the threat of Lost Link situations by steadily providing the operator and crew situational data that allows the PIC the option to terminate a mission long before Link is lost. The DX6 on-board autopilot computer is constantly monitoring the received signal strength and quality of data being exchanged with the PIC Transmitter illustrated above. If the signal degrades during flight a proportional visual bar graph that changes color illustrates the signal quality. A good signal is green; as the signal gets weaker the bar graph proportionally gets smaller and starts to turn yellow. As the signal quality gets worse it turns red and indicates an alarm condition. In addition to the visual indications the transmitter will also provide an audio alert drawing attention to the display. By scanning the instrument panel and noting the signal strength indication, the DX6 transmitter provides sufficient data to enable the PIC to detect a communications link problem early enough to avoid a failsafe condition.

Based on the situation the PIC will either set the aircraft down in a designated safe zone or start flying the aircraft home before Link is effectively lost.

In the event of an emergency landing in a safe zone, the Observer will communicate the situation to the ground crew and point out any hazards to the PIC. The Observer will always collocate, within speaking distance, with the PIC mitigating the possibility for loss communications between PIC and Observer.

As the PIC the exact reason for a data problem is not known. It could be caused by some kind of interference or signal strength situation so quite often just a change in altitude or bringing the aircraft back towards to PIC will clear the problem.

Once the aircraft data link improves, the PIC needs to determine if the aircraft is being jammed in a given area, just a poor signal in the area or if there is a technical problem. Based on this information the PIC will determine whether the mission will continue or be aborted.

Assuming the problem doesn't improve or the PIC notes the signal strength dipping more frequently or signal deteriorating even more though not entirely lost, the PIC will land the aircraft in a safe zone and the Observer will communicate the situation to the ground crew and point out any hazards to the PIC.

If the data link fails the PIC will lose communications and subsequent control of the aircraft. If this happens the aircraft autopilot will enter a fail-safe within one second of the condition being detected and "auto land". The aircraft will place itself in a stationary hover and begin a slow descent. Through feedback via on-board inertia sensors, when the aircraft touches down and lands, the aircraft motors/rotors are powered off.

At this point the aircraft is recovered and powered off by ground crew or the flight crew and the mission is aborted.

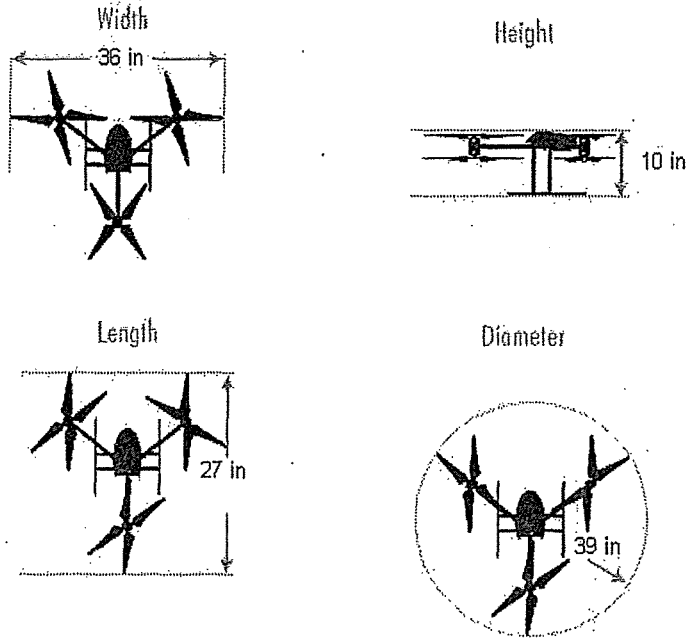
Draganflyer X6 Helicopter Description/Technical Specifications

The Draganflyer X6 is a remotely operated, unmanned, miniature, vertical take off and land, aircraft designed to carry wireless video cameras and still cameras.

Helicopter Size

- **Dimensions**
 - Width: 91cm (36in)
 - Height: 25.4cm (10in)

- Length: 85cm (33in)
- Top Diameter: 99cm (39in)



Weight & Payload

- Helicopter Weight: 35oz (1,000g)
- Payload Capability: 18oz (500g)
- Maximum Gross Take-Off Weight: 53oz (1,500g)

Materials

- Carbon Fiber
- Glass Filled Injected Nylon
- Aluminum & Stainless Steel Fasteners
- RoHS Compliant

Landing Gear

- Installed Height: 18cm (7in)
- Stance Width: 30cm (12in)
- Skid Length: 30cm (12in)
- Landing Gear Material: Molded Carbon Fiber

Rotor Blades

- Three Counter-Rotating Pairs (Six Rotors Total)

- Rotor Blade Material: Molded Carbon Fiber
- Upper Rotor Diameter: 40cm (16in)
- Lower Rotor Diameter: 38cm (15in)
- Upper Rotor Weight: 12g (0.42oz)
- Lower Rotor Weight: 11g (0.38oz)

Position Navigation Lights

- Type: 1 Watt LED Variable Brightness Emitters
- Luminous Flux at Full Brightness: 40lm
- Purpose: Helicopter Orientation Confirmation
- Visible Condition Range: Full Darkness to Direct Sunlight
- Standard Aircraft Colors
 - Red: Left
 - Green: Right
 - White: Tail/Rear

Electric Motors

- Brushless Motors: 6
- Configuration: Direct Drive (One Motor per Rotor)
- Safety Features: Stall Protection
- Ball Bearing: 2 per Motor
- Rotor Mounting Points: Integrated
- Nominal Current Draw Per Motor: 1.04 Amps
- Nominal Power / Motor: 15.4 Watts
- Nominal Total Helicopter Motor Power: 92.4 Watts
- Peak Total Helicopter Motor Power: 450 Watts
- Motor Speed at Hover: 2000 RPM
- Voltage: 14.8V nominal
- Weight: 1.34oz (38g)

Operating Requirements

- Operating Temperature: 14° to 104°F (-10° to 40°C)
- Relative Humidity: 0% to 90% Noncondensing
- Maximum Wind speed: 18mph (30km/h)

Flight Characteristics:

- Climb Rate: 23ft/s (7m/s)
- Descent Rate: 13ft/s (4m/s)
- Turn Rate: 90°/second
- Cruise Speed: 6mph (10km/h)
- Maximum Speed: 30mph (50km/h)
- Minimum Speed: 0mph (0km/h)
- Launch Type: VTOL (Vertical Take Off and Landing)

- Maximum Altitude ASL: 8,000ft (2438m)
- Maximum Flight Time: 25-minutes

11 Onboard Sensors

- 3 Solid State MEMS (Micro-Electro-Mechanical Systems) Gyros
- 3 Solid State MEMS (Micro-Electro-Mechanical Systems) Accelerometers
- 3 Magnetometers (Magneto resistive Sensors)
- 1 Barometric Pressure Sensor
- 1 GPS Receiver
 - GPS Battery Backup: 75mAh Lithium Polymer

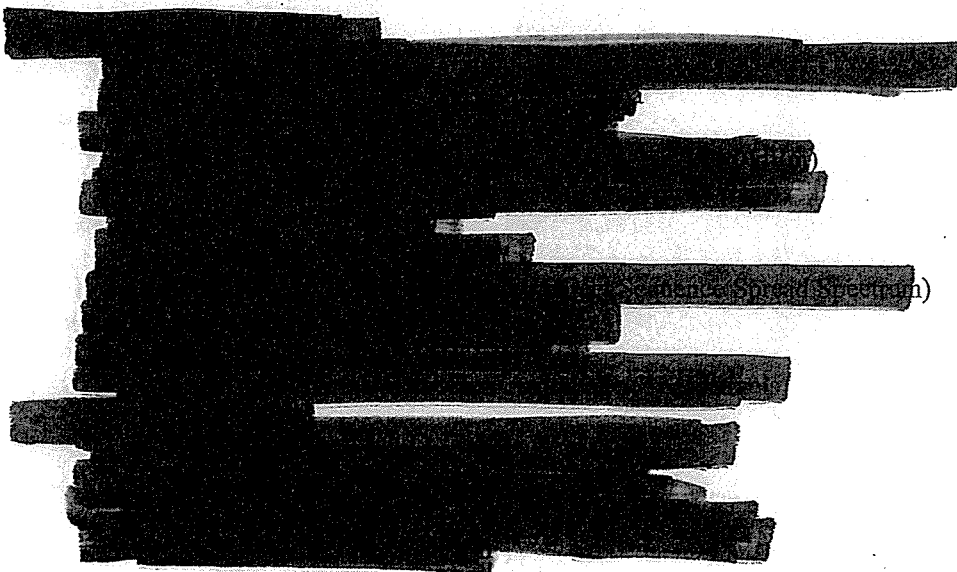
GPS

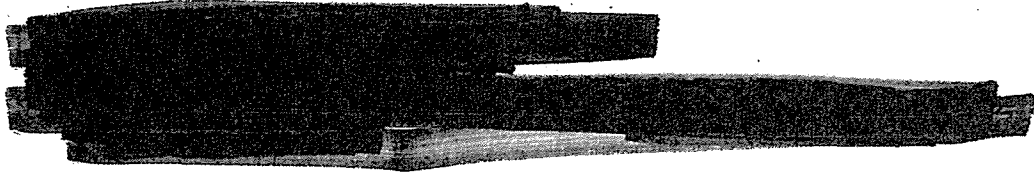
- GPS Used For: Position Hold, Location & Velocity Data
- Maximum Satellites Tracked Simultaneously: 16
- Position Update Rate: 4 Hz
- GPS Antenna: Ceramic Patch
- Battery Backup: Lithium Polymer

Black Box Data Recorder

- Flight Data Recording: On-Board
- Stored To: Removable 1Gb MicroSD Memory Card
- Data Recorded: Onboard Sensor Flight Data (Link quality, Orientation, Altitude, Speed, Direction)

RF Communications





Rechargeable Helicopter Battery

- Cell Chemistry: Lithium Polymer
- Voltage: 14.8V nominal
- Capacity: 2600mAh
- Cell Configuration 4s2p (4-series 2-parallel)
- Connectors: Integrated Balance and Power
- Recharge Time: 30 minutes (after typical flight)
- Length: 7.5cm (2.9in)
- Width: 6.7cm (2.6in)
- Height: 2.7cm (1.0in)
- Weight: 228g (8.0oz)

Camera Attachments

- 10MP (Mega-Pixel) Digital Still Camera with Remote Controlled Tilt, Zoom & Shutter
- 1080p HD (High Definition) Video Camera with Remote Controlled Tilt
- Thermal FLIR (Forward Looking Infra-Red) Camera with Remote Controlled Tilt
- Low Light (0.001lux) Dusk/Dawn Black & White Video Camera with Remote Controlled Tilt

Training Airspace:

Airspace that will be used are as follows: Discovery Park (West Point), Magnuson Park.

The Airspace is outline in an attached Air Chart.

SkyVector

See NOTAMS/Directory for Class D/E (etc) alt hrs

122.85
110.8 CH 43 PAF

HARVEY (S3)
221.27123.0
RP-15L15R

FIRSTAIR (W16)
50-21122.9

100
60

11

100
60

11

100
80

KINGSTON

SEA 22 NM

100
50

100
50

SEA 18 NM

100
50

12

MAGNUSON PARK

100
30

100
30



SEATTLE

LAKE UNION

PORTLAND

24

100
50

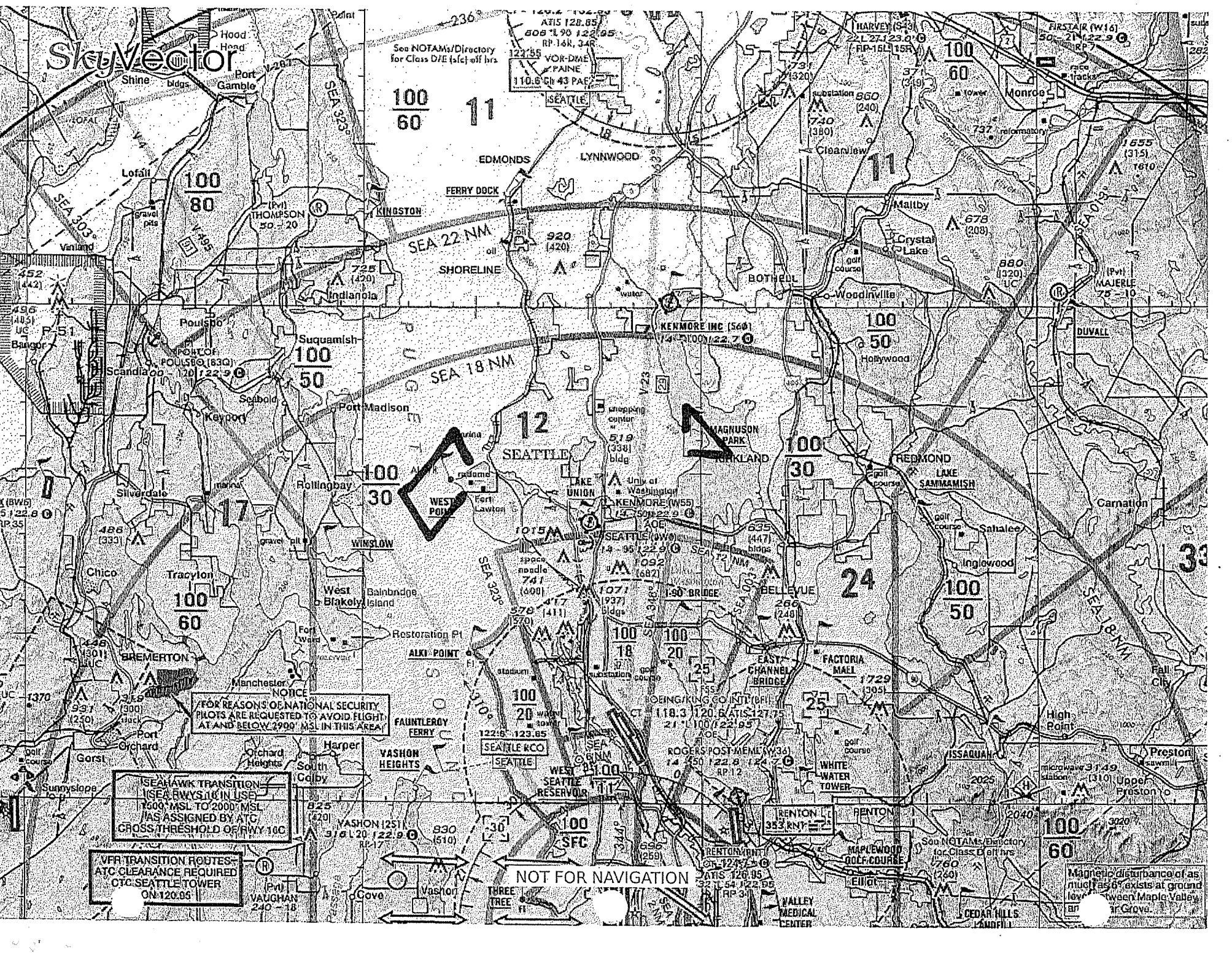
NOTICE
FOR REASONS OF NATIONAL SECURITY
PHOTOS ARE REQUESTED TO AVOID FLIGHT
AT AND BELOW 2900' MSL IN THIS AREA

SEAHAWK TRANSITION
(USE RWYS 10 IN USE)
1500' MSL TO 2000' MSL
HAS ASSIGNED BY ATC
CROSS THRESHOLD OF RWY 10C

VFR TRANSITION ROUTES
ATC CLEARANCE REQUIRED
CTC: SEATTLE TOWER
ON 120.06

NOT FOR NAVIGATION

Magnetic disturbance of as much as 6 gamma exists at ground level between Maple Valley and Groves





SEATTLE POLICE DEPARTMENT PURCHASE & SUPPLY REQUEST

DATE 5/13/2020

REQ # 515

REQUESTED BY Lt. Greg Sackman	SERIAL # 6052	PHONE 206-684-0467	ORG #	ORG. NAME Seattle Police
DELIVERY LOCATION 610 5 Av		DELIVERY DATE REQUIRED July 1, 2010		ORG. TO BE CHARGED <i>Mohit</i>
APPROVED BY	SERIAL #	PHONE	ORG #	
SECTION/PRECINCT COMMANDER APPROVAL <i>Mohit D.R. Paine #5725</i>		THIS FORM MUST BE COMPLETED WHEN PURCHASING ALL GOODS AND SERVICES AND MUST BE APPROVED AS REQUIRED BY DP&P 1.020-Budget, BEFORE GOODS OR SERVICES ARE ORDERED.		

B-CONTRACT NUMBER	DEPARTMENT CONTRACT NUMBER <i>1043952</i>	OTHER
-------------------	----------------------------------------------	-------

#	QUANTITY	DESCRIPTION <small>Give a detailed description including catalog used, item #, size, color, etc.</small>	UNIT PRICE	TOTAL
1	2	Draganflyer X6 Unmanned Aerial System, with Emergency Services/Military Configuration package ***This price is only good with purchase of 2 or more.***	\$41,276.50	0.00
2				0.00
3				0.00
4		<div style="border: 1px solid black; padding: 5px; display: inline-block;">FAS Required</div>		0.00
5				0.00
6		<i>Acrow D/C Approved</i> <i>[Signature]</i>		0.00
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">FY08 UAFI 01109 8004 7/12/10 Proposed P11743</div>		0.00

Note: To calculate the sub-totals and the final total, right click the cursor over the "total" shaded box. Left click on 'Update Field' and the amount should be calculated.

TOTAL \$82,553.00

Important: Grant expenditures must be approved by the grant manager and computer purchases must be approved by ITS.

FOR FISCAL USE ONLY					
#1	ACCT <i>760581</i>	FUND	OR	PROJ <i>P1109</i>	APPROVAL A/P <i>Dee</i>
#2	ACCT	FUND	ORG	PROJ <i>PJ1743</i>	APPROVAL MGR <i>DK</i>
#3	ACCT	FUND	ORG	PROJ	APPROVAL DIR
NOTES, COMMENTS, OTHER ACTIONS <p style="text-align: center;"><i>CC: DV</i></p>					
TO BE ORDERED BY:		FISCAL <input type="checkbox"/>	QM <input type="checkbox"/>	UNIT <input type="checkbox"/>	PO#