

2026 Surveillance Impact Report

Emergency Response Aerial Technology

Seattle Fire Department

Surveillance Impact Report (“SIR”) overview	3
Privacy Impact Assessment	4
Financial Information.....	22
Expertise and References.....	25
Racial Equity Toolkit (“RET”) and engagement for public comment worksheet .	28
Privacy and Civil Liberties Assessment	39
Submitting Department Response	39
Appendix A: Glossary	41
Appendix B: Questions and Department Responses.....	43
Appendix C: Meeting Notice(s).....	44
Appendix D: Additional Comments Received from Members of the Public*	45
Appendix E: Letters from Organizations or Commissions	46
Appendix F: Supporting Policy Documentation	47
Appendix G: List of SFD Emergency Calls/Incident Types Where ERAT is Proposed for Use (2025 Data)	56
Appendix H: Bibliography	58

Surveillance Impact Report (“SIR”) overview

About the Surveillance Ordinance

The Seattle City Council passed Ordinance [125376](#), also referred to as the “Surveillance Ordinance,” on September 1, 2017. SMC 14.18.020.b.1 charges the City’s executive with developing a process to identify surveillance technologies subject to the ordinance. Seattle IT, on behalf of the executive, developed and implemented a process through which a privacy and surveillance review is completed prior to the acquisition of new technologies. This requirement, and the criteria used in the review process, are documented in [Seattle IT Policy PR-02](#), the “Surveillance Policy”.

How this Document is Completed

This document is completed by the requesting department staff, support and coordinated by the Seattle Information Technology Department (“Seattle IT”). As Seattle IT and department staff complete the document, they should keep the following in mind.

1. Responses to questions should be in the text or check boxes only; all other information (questions, descriptions, etc.) Should **not** be edited by the department staff completing this document.
2. All content in this report will be available externally to the public. With this in mind, avoid using acronyms, slang, or other terms which may not be well-known to external audiences. Additionally, responses should be written using principally non-technical language to ensure they are accessible to audiences unfamiliar with the topic.

Surveillance Ordinance Review Process

The following is a high-level outline of the complete SIR review process.

Upcoming for Review	Initial Draft	Open Comment Period	Final Draft	Working Group	Council Review
The technology is upcoming for review, but the department has not begun drafting the surveillance impact report (SIR).	Work on the initial draft of the SIR is currently underway.	The initial draft of the SIR and supporting materials have been released for public review and comment. During this time, one or more public meetings will take place to solicit feedback.	During this stage the SIR, including collection of all public comments related to the specific technology, is being compiled and finalized.	The surveillance advisory working group will review each SIR’s final draft and complete a civil liberties and privacy assessment, which will then be included with the SIR and submitted to Council.	City Council will decide on the use of the surveillance technology, by full Council vote.

Privacy Impact Assessment

Purpose

A Privacy Impact Assessment (“PIA”) is a method for collecting and documenting detailed information collected in order to conduct an in-depth privacy review of a program or project. A PIA asks questions about the collection, use, sharing, security and access controls for data that is gathered using a technology or program. It also requests information about policies, training and documentation that govern use of the technology. The PIA responses are used to determine privacy risks associated with a project and mitigations that may reduce some or all of those risks. In the interests of transparency about data collection and management, the City of Seattle has committed to publishing all PIAs on an outward facing website for public access.

When is a Privacy Impact Assessment Required?

A PIA may be required in two circumstances.

1. When a project, technology, or other review has been flagged as having a high privacy risk.
2. When a technology is required to complete the surveillance impact report process. This is one deliverable that comprises the report.

1.0 Abstract

1.1 Please provide a brief description (one paragraph) of the purpose and proposed use of the project/technology.

The mission of the Seattle Fire Department is to save lives and protect property through emergency medical service, fire and rescue response, and fire prevention. We respond immediately when any member of our community needs help with professional, effective, and compassionate service. SFD is proposing to add two to three emergency response aerial technology (ERAT) devices, also commonly called drones, to the list of specialty equipment we use on emergency calls. The ERAT will only be used for a small and defined set of incident types to provide SFD incident commanders with additional visual situational awareness, particularly in situations where firefighters at ground level are unable to see the full scope of the emergency. When dispatched, the ERAT will fly to a specific latitude and longitude with camera aimed at the horizon. After arriving, the camera will be pointed downward at the scene to provide a live feed for trained Seattle Fire incident commanders and dispatchers, to view and help make operational decisions. The feed will not be recorded or saved in any way. No one besides SFD responders may watch the drone livestream. The SFD will not use the drone feed for any enforcement purposes. It will not be connected to any surveillance tools.

1.2 Explain the reason the project/technology is being created or updated and why the PIA is required.

The Seattle Fire Department can no longer ignore the valuable contribution that emergency response aerial technology provides to saving lives, protecting property, and helping support Firefighter safety. SFD’s purpose with this technology is life-saving emergency response. SFD will be more effective at rescues, hazmat incidents, and fire suppression with ERAT.

The Privacy Impact Analysis is required because, following the City's processes, the Seattle IT Department provided an initial review of the proposed Emergency Response Aerial Technology project by Seattle IT, and provided the determination that this technology should be considered through the surveillance impact report process.

2.0 Project / Technology Overview

Provide an overview of the project or technology. The overview gives the context and background necessary to understand the purpose, mission and justification for the project / technology proposed.

ERAT is an important and newer tool being deployed by fire agencies throughout the country to save lives and protect property. Over the decades, the fire service has continued to adopt new technology, including for example the use by Firefighters of self-contained breathing apparatus, to help protect Firefighters from the hazard of smoke inhalation and allow them to effect more dangerous rescues; gas detection tools to provide identification of the hazards from gas leaks before death or explosion occurs; automatic defibrillators (AEDs) to achieve higher levels of resuscitation for patients facing death when their heart stops; and remote aerial technology to help find members of the public who may need rescue in a body of water or from a park bluff or to provide situational awareness for Firefighters on the ground regarding fire spread in large buildings. The fire service's ability to adopt and leverage new technology has allowed us to reduce the incidence of fires significantly since the 1970s and steadily improve outcomes such as cardiac arrest survival rates over time.

SFD use cases for ERAT are specific and limited. SFD selected these use cases through review of other jurisdictions' experiences as well as our own subject matter experts' recommendations as to the types of rescues and responses where additional visual intelligence would be most impactful in saving lives and property and helping keep Firefighters safe. The following calls for emergency service represent roughly one percent (1%) of the total calls for service received by SFD, and are proposed for approval for deployment of ERAT, as further documented in [Appendix G](#).

- Water/Marine Rescue,
- Marine/Shipboard Firefighting Operations,
- Fires in Buildings,
- Brush Fires/Wildland Urban Interface Fires,
- Hazardous Materials and Energy Responses,
- Post-Earthquake and Post-Disaster Assessment,
- Mass Casualty Incidents,
- Technical Rescues,
- Railcar/Railway Responses, and
- Equipment lifts for remote medical/rescue interventions (such as bringing a floatation device to a person who is trouble in the water).

SFD ERAT will be stored on the roof of an SFD fire station. When dispatched by SFD's Fire Alarm Center to a specific response type at a specific latitude/longitude, the ERAT will fly with cameras pointed at the horizon until they reach the response latitude/longitude location. Cameras, once activated, will transmit a live feed that will not be recorded. SFD employees with proper training including Seattle-specific privacy training will operate ERAT and be authorized to view live footage. Only SFD members who are properly trained will be allowed to view the live footage. The live footage will not be retained or stored. The live footage will not be shared with or seen by anyone from other departments or agencies, or the public.

2.1 Describe the benefits of the project/technology.

SFD ERAT represents an aerial asset to provide an overhead perspective for Firefighters. It is a tool to enhance Firefighter situational awareness such as building shape and the location of other SFD responders. ERAT provides a means to improve Firefighter and civilian safety, to make our suppression and emergency response as effective and strategic as possible, and to locate victims in need of rescue. More information about a selection of SFD's use cases is provided below and statistical information about SFD's use cases is provided in [Appendix G](#).

Use Case: Water/Marine Rescues Locate boaters and swimmers in distress on Lake Washington, Green Lake, Lake Union, and Puget Sound and other bodies of water. Locating victims in a body of water is a more difficult challenge than responding to a fixed building with an address and ERATs can significantly increase our ability to send our watercraft quickly to the patient and save lives. (Approximately 97 responses per year [2025 data]). [Real world example Auburn, ME](#) (McFarland, 2015)

Use Case: Fires in Buildings Provide better information to SFD incident commanders and safety officers regarding specific building attributes, irregularities and the evolution of the fire. SFD command posts are currently limited by line of sight to view the front and partial sides of a building. ERATs will provide information on roof, internal courtyards and windows, and the "back sides" of a building. This information will improve fire ground effectiveness, helping SFD more quickly rescue residents, suppress fires, and keep Firefighters safe. (Approximately 243 responses per year [2025 data]). [Real world example Euless, TX](#) (Marks, 2026)

Use Case: Brush Fires Provide real time situational data about fire spread to help SFD make strategic decisions on pre-positioning and positioning suppression resources. Example: brush fire in South Seattle off I-5 that the wind spread quickly from grasslands to multiple homes in 2025. (Approximately 615 responses per year [2025 data]).

Use Case: Hazardous Materials and Energy Responses Provide aerial eyes on technically demanding incidents involving hazardous materials and high voltage electrical facilities (batteries in buildings, underground vaults), that may also involve and ignite other utilities such as natural gas lines. [Example from Seattle](#): February 18, 2026, fire in Queen Anne. (Approximately 60 responses per year [2025 data]). [Real world example Bloomington, IL](#) (Schlenker, 2022)

Use Case: Post Earthquake Assessment Gather information on condition of critical infrastructure and major facilities immediately following an earthquake, to inform prioritized responses and decision making. Primarily focused on assessment of buildings and facilities such as hospitals, schools, long-term care facilities, high-rise residential towers, as well as power and road infrastructure.

Summary of Expected Benefits

1. Increased life-saving capabilities.
2. Reduced property damage from fire through quicker and more targeted suppression.
3. Increased safety for on-scene SFD Firefighters/ Emergency Medical Technicians (FF/EMTs).
4. Optimized resource deployment made possible through early arrival of ERAT to provide size up information, and improved locational imagery and intelligence.

2.2 Provide any data or research demonstrating anticipated benefits.

SFD is likely to utilize ERAT manufactured by a local Seattle company, BRINC. Deployment data from across BRINC's current customers indicate that ERAT arrives on scene before vehicle apparatus can arrive on scene 88% of the time. A fire can double in size every thirty seconds, so the fact that ERAT arrives quickly and begins transmitting imagery to incident command allows incoming units to proceed directly to the most advantageous location at the incident scene, whether that is at the main front door or perhaps at the back of the structure accessed off an alleyway, and more quickly deploy suppression techniques and water to help slow the spread of fire. This directly reduces fire loss as well as risk to life from fire.

The European Emergency Numbers Association (EENA) conducted an ERAT efficacy study using 50 randomized search and rescue (SAR) trial missions and found that ERAT-equipped search teams could locate a missing person 3.18 minutes faster than teams without ERATs. (EENA, 2017)

A study published in the Prehospital and Disaster Medicine journal found that "In recent years, the use of ERATs in health emergencies has increased. Among their main benefits are avoiding endangering rescuers, travelling long distances in a short time, or contacting victims in risky situations". (Sanz-Martos et al, 2022)

Another study, this one from the International Journal of Disaster Risk Reduction, found that ERAT provide clear benefits during time-critical rescue operations including: ERATs reduced operational risks and increased the safety and performance of response teams; ERATs reduced response times; and the technology facilitated more accurate mission planning and management. (Wankmüller et al, 2021)

The Fire Department New York (FDNY) uses a variety of ERATs for the use cases that SFD has also identified. (Petrillo, 2024) FDNY has found significant benefit in using ERATs for providing the incident commander with additional views of the rescue or fire scene, including for calls involving people missing in water bodies, and structure fires where the ERATs help identify hot spots for the crews and Firefighter escape routes. (Hoey, 2025)

FDNY has also found that ERATs arrive on scene faster than their engines and Firefighters do, and the ERATs transmit live imagery to responding crews. This increases the department's effectiveness by increasing their ability to arrive on scene with prior situational awareness. (Petrillo, 2024) FDNY has also found that responding Firefighters are better able to affect suppression and rescue residents using the imagery provided by the ERAT. "From thermal imaging to providing crucial aerial views during multi-alarm fires, these tools have become indispensable." (Horn, 2024)

The Department of Fire Services in Massachusetts has used ERATs outside structures to good effect for many years, and as a result of this success, has recently begun deploying ERATs inside buildings, finding them particularly effective for hazardous materials responses and structural collapse. The real time footage allows them to identify hazards and form an entry plan that's safer for personnel, allowing them quicker access to begin suppression and life-saving services. (Department of Fire Services, Massachusetts, 2025)

2.3 Describe the technology involved.

SFD is proposing to use uncrewed (remote-flight) ERAT following standard FAA regulations. The ERAT is likely to be sourced from a nationwide company based in Seattle called BRINC. The ERAT we have looked at weigh 38.6-48.6 pounds and are 75 inches wide, however technical specifications continue to evolve as updated models are released and the final specifications for the ERAT SFD receives may end up with slightly different weights or dimensions. They include a video camera to transmit live scene footage backed to SFD-approved members who will have access to the video feed, as well as thermal imaging cameras to help locate the spread of fire below a roof to support effective suppression and Firefighter safety or locate a boater who has fallen in the water and requires rescue.

2.4 Describe how the project or use of technology relates to the department's mission.

The mission of the Seattle Fire Department is to save lives and protect property through emergency medical service, fire and rescue response and fire prevention. We respond immediately when any member of our community needs help with professional, effective and compassionate service. SFD is proposing to add a small number of emergency response aerial technology devices to the list of specialty equipment we use to respond to emergency calls for service. The ERAT will be used only for a defined set of incident types and provide SFD incident commanders with additional visual situational awareness, particularly in situations where humans located at ground level are unable to see the full scope of the emergency. SFD will be more effective at rescues, hazmat incidents, and fire suppression with ERAT. SFD will not use ERAT for any enforcement purposes. The ERAT feed will not be recorded, and employees of other City departments, other agencies, or the public will not be able to view the live feed. SFD's purpose with this technology is life-saving emergency response.

2.5 Who will be involved with the deployment and use of the project / technology?

SFD ERAT will be deployed by specially trained Fire Alarm Center Firefighter/Dispatchers who have training in the FAA's operational and safety requirements as well as City of Seattle privacy requirements. SFD ERAT video feeds will be provided by encrypted link only to specific personnel fulfilling specific roles: Deputy Chief 1, Deputy Chief 2, Assistant Chief of Operations, Assistant Chief of Resource Management, Fire Marshal, Safety Chief, and Chief of the Seattle Fire Department. These personnel will have completed the required SFD ERAT privacy training and have an operational need to see the video footage to support and direct firefighting and life-saving rescue missions.

3.0 Use Governance

Provide an outline of any rules that will govern the use of the project/technology. Please note: non-City entities contracting with the City are bound by restrictions specified in the surveillance ordinance and privacy principles and must provide written procedures for how the entity will comply with any restrictions identified.

SFD is proposing to use ERAT for the incident types as described in [Appendix G](#), which represent 1% of total SFD emergency calls. SFD will provide required annual training for all our members about Seattle Municipal Code privacy requirements related to tools included on the City's list of surveillance technology. SFD will provide additional required training to the limited and defined list of responder positions that will have access to receive the encrypted link to live video feed. SFD will monitor completion of annual training using our learning management system, Target Solutions. SFD will not record video imagery to include not recording thermal camera imagery, and SFD will require contractual terms with our vendor that prevent the vendor from viewing live video feeds and/or thermal imagery except for specific technical trouble shooting purposes. The live video feed will not be shared with anyone outside of SFD, so not with other City departments, and not with non-City agencies whether local, state or federal. SFD's ERAT video feeds will not be used to identify individuals; SFD's ERAT's purpose is specific to giving the SFD incident command information they can use to direct firefighting, technical rescue and response, assess structural damage or transport live-saving equipment.

3.1 Describe the processes that are required prior to each use, or access to/ of the project / technology, such as a notification, or check-in, check-out of equipment.

ERATs will be launched only by specially trained SFD members who are detailed to the role of Firefighter/Dispatcher at the SFD Fire Alarm Center. The employees will receive required training on the proper use of ERAT to comply with Federal Aviation Administration operational and safety rules. No SFD employee will be allowed to operate or access SFD ERAT video feeds until they have completed (within the last 12 months) the SFD-specific ERAT privacy training described elsewhere in this document regarding the proper safeguards and restrictions for use of surveillance technology as defined by Chapter 14 of the Seattle Municipal Code. In addition, each day before flight operations, a visual inspection must be completed by SFD employees to ensure the flight-worthiness of the ERAT equipment itself.

3.2 List the legal standards or conditions, if any, that must be met before the project / technology is used.

All operations will be conducted in accordance with FAA requirements including those found in the FAA's Beyond Visual Line of Sight (BVLOS) waiver and/or in FAA codes Section 107 Visual Line of Sight Operations. SFD operators shall receive required training to comply with FAA requirements related to operating emergency response aerial technology.

A copy of the FAA BVLOS waiver will be accessible and available to the remote Pilot in Charge at the ground Control Station during ERAT operations. Flight operations will comply with the speed requirements, take off weights, grid height, and standard remote ID required by the FAA and special use airspace requirements of the FAA. This is primarily accomplished by ERAT device programming and capabilities as would be provided by the vendor, BRINC and as will be included in any contractual terms with BRINC if the City approves this technology.

All flight hours are recorded, along with flight stop and start time, locations of destination.

Required notifications to FAA will be made.

SFD will deploy ERAT for the incident types list in this SIR.

SFD Firefighter/Dispatchers will verify that the incident type is appropriate for the use of ERAT prior to dispatching the ERAT.

Before having access to pilot ERAT or receive ERAT live video feeds including thermal imagery, SFD personnel will receive specific privacy training related to compliance with Chapter 14 of the Seattle Municipal Code. The training will be recorded and tracked in the SFD learning management system and cover the strict requirements limiting access to the live video feed including strict prohibitions against sharing of the video feed. This includes not allowing employees from other City departments (such as the Seattle Police Department or any other City department), other agencies (including King County Sheriff or any federal agencies), other organizations or companies (such as the ambulance company AMR) or the public to see the video feed. SFD members already have experience with following strict HIPAA rules that protect patient medical information in the course of their work.

3.3 Describe the policies and training required of all personnel operating the project / technology, and who has access to ensure compliance with use and management policies.

SFD supervisors and commanding officers are responsible for ensuring compliance with use and management policies. The SFD FAC Fire Alarm Center Captain will be responsible for ensuring compliance with FAA requirements. SFD's Public Disclosure Officer can also conduct audits of all data collection software and systems. Additionally, any appropriate auditor, including the City Auditor's Office, can audit at any time.

The SFD Chief of Training will be responsible for ensuring all SFD members receive the required annual ERAT privacy training, while the limited number of Chiefs and Firefighter/Dispatchers who are authorized to view the live video feed will be required to complete additional annual training as described in Section 7.2. All operators (Firefighter/Dispatchers) must also receive the required training and flight hours to maintain their authorizations to operate ERAT under the BVLOS waiver from the FAA.

All SFD employees must adhere to laws, City policies, and Department policies.

4.0 Data Collection and Use

4.1 Provide details about what information is being collected from sources other than an individual, including other IT systems, systems of record, commercial data aggregators, publicly available data and/or other City departments.

Very limited data will come from other IT systems. Specifically: for call types that are approved for use of ERAT, latitude and longitude data describing incident location will be manually obtained by an ERAT-qualified SFD Fire Alarm Center on-duty Firefighter/Dispatcher in the SFD Computer Aided Dispatch system, and manually entered by that employee into the secure BRINC application, to provide coordinates for the ERAT to fly to the incident.

SFD has not identified any need to collect or use data from commercial data aggregators or collect or use data from any publicly available data and/or other City departments.

A future integration is also proposed, that would automatically pass the incident latitude and longitude from the Seattle Fire Department Computer Aided Dispatch system to the ERAT vendor. Addresses and names and other potentially personally identifiable data points are not needed and would not be passed. In addition, once this integration is built, SFD Computer Aided Dispatch system could receive back from the vendor the specific location of the ERATs, allowing us to visualize them on a map. Again, only coordinates would be passed, no address or property owner names and also no images from the video feed would be shared with the CAD system for mapping purposes. Access to the video feed will be strictly limited and controlled as described elsewhere in this document. Integrations of the type described will undergo the standard and rigorous Seattle IT process to review security, architecture, and privacy.

Flight logs will be produced documenting times and latitude/longitudes and retained as required under [Washington State law](#). Video (to include audio and thermal imaging) will not be stored. The live feed is simply streamed to the operator and a small number of approved on-duty Chiefs who have an operational need for the information and will not be “written to storage” in any technology system. Only a small number of properly trained and certified SFD employees will be able to view live cameras or any associated information. SFD already trains and is responsible for strict HIPAA compliance. SFD on-duty Firefighter/Dispatcher or specific role base Chief officers with a need to see ERAT video feeds will be trained and responsible for complying with privacy and security requirements from the City of Seattle and SFD.

BRINC’s system will store the following data and have [State of Washington retention/destruction periods](#) applied:

- List of pilot names, associated emails and the live ops team they are on, SFD employee user's phone numbers, user management logs.
- List of BRINC device names.
- Aggregate and by-device data on the count of flights, hours online, distance travelled.
- Pre- and post-flight inspections records if these are entered into the BRINC system by SFD.
- Data published to Seattle FD's public transparency dashboard.
- Data supporting reports to FAA regarding air space incursions, etc.
- List of SFD users who are set up to receive secure email links to the ERAT feed.
- Audit log of users who look at any Seattle data.
- Station launch locations and ERAT locations.
- Major and regulated maintenance history, minor non-regulated maintenance history, and ERAT conditions such as any trouble or maintenance indicators.
- Tech support tickets (to include returned merchandise authorization).

4.2 What measures are in place to minimize inadvertent or improper collection of data?

SFD's ERAT will fly with "eyes" on the horizon and so they will not be observing homes or buildings or vehicles or images of people while en route to the dispatched location.

SFD has chosen not to record any videos (to include not recording the video's audio or thermal images). SFD's operational goal and purpose with this proposed technology is to enable SFD situational awareness during emergencies to help SFD suppress fires, locate rescue victims, and keep Firefighters safe, and for this goal we do not need to record the video and we will not. Based on this policy, the vendor's system will be programmed to not record live video.

For properly collected data, the system will be programmed to follow the retention and destruction schedules under State of Washington laws, see Section 7.1 below.

SFD will adopt and train on Standard Operating Procedures (SOP's) guiding our strictly limited set of authorized users/operators, to include:

- SFD users will not copy, store, share, transmit or download any data obtained from ERAT.
- Employees and supervisors are responsible to prevent unauthorized viewing of ERAT feeds (audio/video) while ERAT are in use for both Fire Alarm Center Firefighter/Dispatchers and on-duty Chiefs who receive an encrypted link to the video feed.
- Two-factor authentication will be used for authorized users.
- Video stream access links are incident specific, sent only to specific approved Chiefs, and expire once the incident is closed.
- No vendor or third-party viewing is allowed.
- Video feeds (to include audio and thermal imaging) will not be stored. Other data such as flight times and durations, latitude/longitude, and operator, will be stored in compliance with Washington administration codes and applicable SMC.

- Commercially available privacy screen protectors will be added to applicable devices to limit inadvertent viewing.

4.3 How and when will the project / technology be deployed or used? By whom? Who will determine when the project / technology is deployed and used?

SFD ERAT equipment that flies to incidents will be deployed by SFD Fire Alarm Center Firefighter/Dispatchers at time of dispatch. SFD is proposing to deploy ERAT for the incident types listed in this SIR in [Appendix G](#) and consistent with 2021 Seattle Fire Code 104.12, “Authority at fires and other emergencies”. In case of fire emergency or significant incident, the Fire Chief is authorized to direct operations to extinguish the fire, perform rescue and investigate hazardous conditions such as gas leaks.

The staff who will dispatch the ERAT will be Firefighter/Dispatchers working in the Fire Alarm Center. When dispatching on an incident that has an incident type approved for ERAT use, the Firefighter/Dispatcher will enter the latitude and longitude of the incident location into the ERAT vendor’s online portal using a secure log in (IT security described in appropriate sections elsewhere in this document). After an ERAT is dispatched to a specific response type at a specific latitude/longitude, the ERAT will fly with cameras pointed at horizon until it reaches the response latitude/longitude location. Cameras, once activated, will transmit a live feed that will not be recorded. SFD employees in roles approved for ERAT access will be able to view the live footage. SFD already follows strict HIPAA laws protecting private medical information for all patients we serve and will also follow strict privacy laws related to ERATs.

4.4 How often will the technology be in operation?

The technology will be approved for deployment on roughly 1% of SFD’s annual calls, as further depicted in [Appendix G](#).

4.5 What is the permanence of the installation? Is it installed permanently, or temporarily?

The SFD ERAT will have landing pads/enclosures, one per ERAT, on the top of specific SFD stations. When the ERATs are in the landing pads/enclosures, they are not able to collect surveillance data. Landing pads/enclosures are generally permanent in nature but can be removed and relocated to a different fire station roof.

4.6 Is a physical object collecting data or images visible to the public? What are the markings to indicate that it is in use?

Yes, the public might be able to see ERAT flying over an SFD incident response.

The SFD ERAT will have a remote identification broadcast system that can convey ERAT information to the FAA and to the SFD system of record for our flight logs: location and altitude, velocity, control station location and elevation, time mark. This is an FAA requirement to transmit this data, and it is publicly available.

The ERAT will have green and red lights displayed when it is flying to and from an incident.

The ERAT will have emergency lights flashing red and blue while on scene of an incident.

The ERAT will have a label that includes the owner (Seattle Fire Department) and guidance “Call 911 if found” for statistically very remote chance that the ERAT lands somewhere else than at the Fire Station landing pad.

What signage is used to determine department ownership and contact information?

There will be a vinyl decal wrapped around the ERAT that will indicate department ownership and contact information and include the Seattle Fire Department logo:

Property of the City of Seattle
Call 911 if found
Seattle Fire Department logo

4.7 How will data that is collected be accessed and by whom?

SFD ERAT will be operated by specially trained Fire Alarm Center Firefighter/Dispatchers who have training in the FAA’s operational and safety requirements as well as City of Seattle SMC Chapter 14 privacy requirements. SFD ERAT video feeds will be provided by encrypted link only to specific personnel: Deputy Chief 1, Deputy Chief 2, Assistant Chief of Operations, Assistant Chief of Resource Management, Fire Marshal, Safety Chief, and Chief of the Seattle Fire Department. These on-duty Chief Officers will have completed the required SFD ERAT privacy training and have an operational need to see the video footage to support and direct firefighting and life-saving rescue missions. No other City departments or other agencies will have access to viewing the ERAT live video feeds or SFD ERAT data contained in the BRINC system.

Flight videos and thermal images are not stored by the vendor. Other information such as flight times, dispatch locations, operator names, and ERAT operational data relevant for maintenance purposes will be stored. The contract with BRINC, if approved, will restrict BRINC’s access to data from and about the Seattle ERATs to technical troubleshooting purposes only. These elements follow the criteria set forth in the City’s surveillance ordinance and privacy agreements.

See Section 4.2 above for elements of SFD’s proposed standard operating procedure (SOP) for users/operators that limit data access.

4.8 If operated or used by another entity on behalf of the City, provide details about access, and applicable protocols.

SFD’s ERAT will only be operated by SFD employees. Video and thermal imaging from SFD’s ERAT will only be provided to specific SFD employees in specific on-duty roles during an incident. No other entities will have access to operate the ERAT or view the live stream video including thermal imaging information.

The vendor providing the ERAT will have access to SFD data which will be limited in the contract. The vendor has access to data for technical troubleshooting only, but otherwise the contractor is not legally allowed to view or use the live video feeds or thermal imaging data. Flight videos and thermal imaging data are not recorded or retained, and the contract prohibits the vendor from viewing our flight data or thermal imaging data except for technical troubleshooting.

These restrictions will be enforced through both contract and technical controls: access is governed by the customer contract, limited by role-based access controls within the BRINC system, and tracked in an auditable log.

4.9 What are acceptable reasons for access to the equipment and/or data collected?

SFD's proposed ERAT will have landing pads on top of fire stations. The ERAT will stay in these landing pads when they are not in use. Firefighters in these stations will be required to access the equipment to perform daily pre-flight visual inspections of the ERAT equipment to verify the ERAT are flight-ready with no observable damage or maintenance needs.

SFD and BRINC employees will require access to the ERAT equipment when maintenance is required.

Flight videos to include audio and thermal imaging data are not recorded or retained.

The vendor has access to live video stream data for technical troubleshooting only, but otherwise the contractor is not legally allowed to access the customers' data.

SFD on-duty employee access is limited as described in Section 4.7.

4.10 What safeguards are in place, for protecting data from unauthorized access (encryption, access control mechanisms, etc.) And to provide an audit trail (viewer logging, modification logging, etc.)?

SFD's contract with the proposed vendor will follow the City of Seattle's comprehensive contracting requirements provided by the Department of Finance and Administrative Services related to data security, data use limitations, and indemnification.

In addition, the proposed vendor has many safeguards in place to protect data from unauthorized access, which will be incorporated into our contract. The vendor provides the following security standards to protect data:

- Federal information processing standard 140-2 is met for all data and data is encrypted based on the AES-256 standard.
- Data is stored on a US based AWS server and data is only accessible to authorized to specific SFD employees in specific roles on duty, under its secured organization accounts.
- The vendor's cloud-based system, LiveOPS, is CJIS-compliant, meaning it adheres to the FBI's strict criminal justice information security policy. This includes user access tracking, ensuring there is an access log of any access to any potentially sensitive information.

- The cloud-based system is also SOC2 compliant, a standard set by the AICPA (American Institute of Certified Public Accountants). SOC2 certified that a service organization securely manages data to protect privacy and system reliability.

In terms of audit trails and information about access, several mechanisms will be available to SFD. A flight log is maintained that lists SFD operators. A list is maintained of employees who are approved to receive encrypted live video feed and their email addresses – on duty Chiefs involved in the incident. A list is maintained of the email addresses of individuals to whom the encrypted link to the ERAT live feed is sent. These lists can be queried and audited at any time.

The vendor also provides audit logs related to data access, data modification and/or deletion. It is possible to query this information and learn who accessed, modified or deleted Seattle data at any time.

5.0 Data Storage, Retention and Deletion

5.1 How will data be securely stored?

As described in Section 4.10 above:

- Federal information processing standard 140-2 is met for all data and data is encrypted based on the AES-256 standard.
- Data is stored on a US based AWS server and data is only accessible to authorized to specific SFD employees in specific roles on duty, under its secured organization accounts.
- The vendor's cloud-based system, LiveOPS, is CJIS-compliant, meaning it adheres to the FBI's strict criminal justice information security policy. This includes user access tracking, ensuring there is an access log of any access to any potentially sensitive information.
- The cloud-based system is also SOC2 compliant, a standard set by the AICPA (American Institute of Certified Public Accountants). SOC2 certified that a service organization securely manages data to protect privacy and system reliability.

5.2 How will the owner allow for departmental and other entities to audit for compliance with legal deletion requirements?

Retention and destruction logs are maintained by the vendor and available to SFD. These audit logs will allow SFD or other City-authorized auditors to review to verify data is being deleted properly and on schedule. Every retention-related event generates a log entry recording:

- Date and time of the action.
- User and role (for manually initiated deletions).
- Action type — e.g., manual deletion, retention policy update, or "keep forever" designation.
- Target — the specific flight or video file affected, identified by its unique ID.
- Details of the settings or options applied.
- Status — confirmation of whether the action completed successfully.

5.3 What measures will be used to destroy improperly collected data?

We understand improperly collected data to mean data collected about identifiable individuals in a manner that is not compliant with Chapter 14 of the Seattle Municipal Code. SFD is proposing that for our ERAT, video feeds and thermal imaging records will not be captured at all. This setting will be applied by programming in the software system. If storage of video feeds of rescues or responses were to occur, that would be improper, and as soon as SFD or BRINC noticed the improper collection, our contract with the vendor will require that the data be immediately destroyed from the BRINC servers and application. In addition, SFD staff will follow up by performing an analysis to determine what processes were not followed or did not function properly, whether contractual terms were violated, in other words “what went wrong” and how to best prevent that from happening again. These findings will be documented in a report to the Fire Chief for follow-up.

The vendor’s system is configurable to handle the records retention and destruction policy of each agency/customer. BRINC provides autodelete based on retention duration, which is configurable such as 30 days, 4 years, keep forever. Once the retention policy date is reached for a specific piece of data/content, the content scope is automatically and permanently deleted. Logs of actions taken to delete information can be produced on request to the Seattle Fire Department for supervisory oversight and review and provided to other approved auditors.

5.4 Which specific departmental unit or individual is responsible for ensuring compliance with data retention requirements?

Unit supervisors are responsible for ensuring compliance with data retention requirements in SFD. The SFD Fire Alarm Center Captain will be responsible for maintaining the flight logs and other data that must be retained per laws of Washington State.

[https://www.sos.wa.gov/assets/archives/recordsmanagement/advice-sheet-how-long-do-drone-operation-records-need-to-be-kept-by-local-governments-\(july-2020\).pdf](https://www.sos.wa.gov/assets/archives/recordsmanagement/advice-sheet-how-long-do-drone-operation-records-need-to-be-kept-by-local-governments-(july-2020).pdf). SFD’s Public Disclosure Unit personnel can also conduct audits of all data collection software and systems. Additionally, any appropriate auditor, including the City of Seattle Auditor’s Office, can audit for compliance at any time.

6.0 Data Sharing and Accuracy

6.1 Which entity or entities inside and external to the City will be data sharing partners?

SFD will not be sharing any data with personally identifiable information with internal or external partners. Only a limited number of trained and approved SFD members will view the video and thermal imaging live feeds, which is key data in this proposed technology that is subject to the requirements of Chapter 14 of the Seattle Municipal Code.

In the future, if the City's SFD Computer Aided Dispatch (CAD) system is integrated with the BRINC system for purposes of dispatching ERAT, the City's SFD CAD system may push latitude and longitude information for dispatch locations to the BRINC system, and the CAD system may receive information back from BRINC about the latitude and longitude of the ERAT during deployment. This situational awareness of the geographic location of deployed assets is similar to how the CAD system receives the location of other SFD equipment and apparatus that are working at incidents.

6.2 Why is data sharing necessary?

Data sharing is not planned, beyond possible future sharing of information about latitudes/longitudes of SFD ERAT and incidents between the Seattle SFD CAD system and the BRINC system, the limited nature and purpose of which is described in the answer to question 6.1 above.

6.3 Are there any restrictions on non-City data use?

Yes ☒ No ☐

6.3.1 If you answered yes, provide a copy of the department's procedures and policies for ensuring compliance with these restrictions.

We are not proposing any use of the data from SFD ERAT by non-City agencies. SFD will not share personally identifiable data obtained by our ERAT with other City agencies, or with other non-City agencies, or with the public. See also information about our training in Section 7.2 in this document that will support effective handling of this data in a manner that is not shared with other City agencies or non-City agencies. SFD is also developing new procedures and policies for employees and supervisors that cover use of ERAT, protection of live video feed, accountability/audits, as well as FAA operational requirements (Appendix F).

6.4 How does the project/technology review and approve information sharing agreements, memorandums of understanding, new uses of the information, new access to the system by organizations within City of Seattle and outside agencies?

SFD is not proposing to share data within City of Seattle or with outside agencies. Those uses will not be authorized by the SIR and will not be allowed. Given that this sharing won't be allowed, we are not developing processes to provide access to other City organizations or outside agencies. Instead we will have Standard Operating Procedures (SOP's) and trainings that educate employees on the proper use of personally identifiable data from ERAT; we are strictly limiting access to the live video stream to a small number of on-duty Firefighter/Dispatchers and incident Chiefs; and we will have strict contractual requirements with our vendor as described in this document prohibiting vendor access to the data except for specific technical troubleshooting purposes.

Other data such as maintenance records, flight logs, operator names, and possible exception conditions like incursions into restricted airspace must be maintained and potentially reported to the FAA. This information does not contain SMC Chapter 14 personally identifiable surveillance data. This information will be retained and managed as required by State law.

6.5 Explain how the project/technology checks the accuracy of the information collected. If accuracy is not checked, please explain why.

Information from the live video feed will be used in real time to help locate victims, perform “size ups” at fire scenes to enable best operational decisions by the Chief in charge of the incident, and to protect Firefighters for example by determining hotspots and spread of fire that may not be visible to the unaided eye. The concept of accuracy for our use cases therefore pertains to accuracy of the live video feed, as well as accuracy of the thermal imaging data included. The accuracy will be checked by SFD employees who are authorized and using the data, by noticing if the ERAT live feed or thermal imaging seems to be producing results that are not aligned to the real-world conditions we are experiencing while working a fire suppression, water rescue, or other incident. These video feeds including thermal imaging data will not be recorded.

6.6 Describe any procedures that allow individuals to access their information and correct inaccurate or erroneous information.

The data are not being connected to individual’s names, and the video feed and thermal imaging data are only being viewed live and are not being stored. There is no way to correct this data as it is not being stored, it is being used “in real time” to make rescue and firefighting decisions for life-savings measures during a fire or life safety emergency.

7.0 Legal Obligations, Risks and Compliance

7.1 What specific legal authorities and/or agreements permit and define the collection of information by the project/technology?

The legal contract with the vendor will define limits on the vendor’s access to SFD data, limited to technical troubleshooting only.

Under the laws of the State of Washington including Disposition Authority Numbers (DANs):

RCW 42.56 – State of Washington Public Records

Retention of Flight and Use Logs: Usage and Dispersal (Assets) (DAN GS2012-045)

Maintenance – Major and/or Regulated (DAN GS2012-039)

Maintenance – Minor Non-Regulated (DAN GS2012-040)

Pre- and Post-Flight Inspection Records for the ERAT - Inspections/Monitoring – Regulated (Non-Environmental) (DAN GS2012-038)

Pre- and Post-Flight Inspection Records for the ERAT - Inspections/Monitoring – Non-Regulated (DAN GS2012-037)

Reports to Federal Aviation Administration (FAA) (example: as air space incursions) - Reporting/Filing (Mandatory) – Assets (DAN GS2012-044)

Under the laws of the City of Seattle:

SMC 14.18 - requires that RPAS undergo a privacy and surveillance review as defined in Ordinance 125376

7.2 Describe what privacy training is provided to users either generally or specifically relevant to the project/technology.

If Council approves SFD acquisition of ERAT, SFD will develop two types of privacy trainings for SFD employees as described below.

General ERAT Privacy Awareness Training – annual training for all SFD employees providing general awareness about the privacy rules and obligations around SFD ERAT, the list of on-duty roles that are authorized to view the live feed and thermal imaging information, and the expectation for all non-authorized employees to refrain from asking or attempting to see live feed or thermal imaging.

Specific ERAT Privacy Training – training required before first use and annually for all employees in on-duty roles that are authorized to receive encrypted video feeds including thermal imaging data. This training will cover new standard operating procedures including:

- The type of information that meets the surveillance definition in SMC Chapter 14 as well as responsibilities of SFD members who are authorized in their roles to receive video feed.
- SFD users shall not copy, store, share, transmit or download any data obtained from ERAT.
- All reasonable efforts shall be maintained to prevent unauthorized viewing of ERAT feeds (audio/video) while ERAT are in use for both Fire Alarm Center Firefighter/Dispatchers and on-duty Chiefs who receive an encrypted link to the video feed.
- Two-factor authentication will be used for authorized users.
- Video stream access links are incident specific, sent only to specific approved Chiefs, and expire once the incident is closed.
- No vendor or third-party viewing is allowed. Sharing is strictly prohibited, including no sharing with SPD, SPU, SCL, Parks or other personnel that may also be responding to the incident.
- Video feeds will not be stored. Other data such as flight times and durations, latitude/longitude, and operator, will be stored in compliance with Washington administration codes and applicable SMC.
- Commercially available privacy screen protectors will be maintained on all devices receiving the live stream to limit inadvertent viewing.

Completion of these trainings will be tracked through the department's learning management system Target Solutions. The Chief of Training will be responsible for members' training completion.

7.3 Given the specific data elements collected, describe the privacy risks identified and for each risk, explain how it was mitigated. Specific risks may be inherent in the sources or methods of collection, or the quality or quantity of information included.

The privacy risk identified is that personally identifiable images of residents or visitors may become part of the live video feed or thermal images, for example if we are using the ERAT to locate a swimmer in distress, or if a homeowner is standing outside their home during a fire emergency. This risk is being mitigated by not storing the live feed data and only viewing it in real time for the sole purpose of enhancing on scene decision-making and optimizing our ability to suppress fire, perform a rescue, or keep Firefighters safe. This risk is further being mitigated by strictly limiting who can see the video feed: no outside agencies, no other City of Seattle departments, and only a small number of SFD on-duty employees with an operational need (Firefighter/Dispatchers on duty in the Fire Alarm Center, and Deputy Chief 1, Deputy Chief 2, Assistant Chief of Operations, Assistant Chief of Resource Management, Fire Marshal, Safety Chief, and Chief of the Seattle Fire Department).

7.4 Is there any aspect of the project/technology that might cause concern by giving the appearance to the public of privacy intrusion or misuse of personal information?

The public is becoming more accustomed to seeing ERATs flying in Seattle, with most ERATs belonging to one of two categories: (1) privately owned and operated ERATs, and (2) commercially owned and operated ERATs. It is possible and understandable that if a resident sees an ERAT and learns that it is an SFD ERAT, the resident may have concerns about the purpose of the ERAT. During emergency incidents, the residents may infer from the situation (a water rescue, a fire suppression effort) that the ERAT is being used for rescue and response purposes. However, residents may reasonably want more information and SFD will be happy and ready to provide it. If residents have questions, they can obtain information from SFD including publicly available records about the ERAT including ownership and flight logs, location of incident, incident types and other publicly available incident information. SFD will also share this SIR including the information it contains about the public review process and the data protection and approved uses/users for SFD ERAT. SFD's Public Affairs team will be the point of contact for residents' questions about ERAT. Residents and interested parties may contact us at SFDPIO@seattle.gov.

8.0 Monitoring and Enforcement

8.1 Describe how the project/technology maintains a record of any disclosures outside of the department.

Although we expect zero viewing of video feeds outside of the department, SFD's policies will require notification to the FAC Captain by any employee who makes a disclosure of video feed or thermal imaging data to any person or agency outside of the Seattle Fire Department. This disclosure would be non-proper and would not be consistent with SFD trainings or policies. The disclosure would prompt a review of the incident and appropriate follow-up, which could include enhancement for the training materials or discipline/employee counseling, and a mandatory report to the Fire Chief. SFD intends for our trainings and policies to set our employees up with the knowledge they need and support them to prevent improper disclosures in the first place.

As described in Section 4.10, the vendor software maintains a list of all users who access SFD data.

8.2 What auditing measures are in place to safeguard the information, and policies that pertain to them, as well as who has access to the audit data? Explain whether the project/technology conducts self-audits, third party audits or reviews.

SFD will conduct quarterly reviews of BRINC's data to confirm video feeds are not being stored and that other records are being retained/destroyed according to Washington State Law ([https://www.sos.wa.gov/assets/archives/recordsmanagement/advice-sheet-how-long-do-drone-operation-records-need-to-be-kept-by-local-governments-\(july-2020\).pdf](https://www.sos.wa.gov/assets/archives/recordsmanagement/advice-sheet-how-long-do-drone-operation-records-need-to-be-kept-by-local-governments-(july-2020).pdf)).

The Fire Alarm Center Captain will be responsible for ensuring compliance with data retention requirements in SFD for those elements such as ERAT flight logs and maintenance records that are required to be stored by the laws of Washington State. SFD's Public Disclosure Unit personnel can also conduct audits of all data collection software and systems. Additionally, any appropriate auditor, including the Seattle City Auditor, can audit for compliance at any time.

Financial Information

Purpose

This section provides a description of the fiscal impact of the surveillance technology, as required by the surveillance ordinance.

1.0 Fiscal Impact

Provide a description of the fiscal impact of the project/technology by answering the questions below.

1.1 Current or potential sources of funding: initial acquisition costs.

Current ☐ potential ☒

Date of initial acquisition	Date of go live	Direct initial acquisition cost	Professional services for acquisition	Other acquisition costs	Initial acquisition funding source
December 2026	December 2026	\$0 (donation from the Seattle Fire Foundation)	\$0 (donation from the Seattle Fire Foundation)	\$0 (donation from the Seattle Fire Foundation)	Donation from the Seattle Fire Foundation

Notes: The Seattle Fire Foundation has offered to acquire two or possibly three ERATs including first year installation, training and service costs and donate them at no charge to the City of Seattle, Seattle Fire Department. The Seattle Fire Foundation is a private charity. The Seattle Fire Department will pay for ongoing service costs beginning in year two.

1.2 Current or potential sources of funding: on-going operating costs, including maintenance, licensing, personnel, legal/compliance use auditing, data retention and security costs.

Current ☐ potential ☒

Annual maintenance and licensing	\$60k per ERAT, total of \$120k for 2 ERAT or \$180k for 3 ERAT, beginning 12 months after the ERAT are procured by Seattle Fire Foundation. Procurement is estimated for December 2026 or January 2027, so the first impact to SFD budget would be in December 2027 or January 2028 depending on Council authorization of this SIR.
Legal/compliance, audit, data retention and other security costs	No new costs identified. SFD will manage compliance responsibilities with existing staff. The “annual maintenance and licensing” described in the row above includes charges to SFD for the ERAT-vendor-provided security, data compliance and audit tracking functionality we require.
Department overhead	No new costs identified. SFD will manage this project with existing staff and overhead.
IT overhead	No new costs identified. The vendor will manage installation and maintenance of the ERAT equipment and software as a service.
Annual funding source	SFD Budget.

Notes: The \$60,000 annual cost per ERAT includes: unlimited repairs plus one fully new replacement per year if needed, installation, configuration and testing, training for all operators, assistance with FAA approval, assistance with policies, maintenance of the secure online portal and audit capabilities, records retention/destruction programming, and more. SFD will ensure any contract allows us to cancel with no penalty after the first year, corresponding to our commitment to piloting or evaluating this technology.

1.3 Cost savings potential through use of the technology

None identified, although if this equipment does help us improve Firefighter safety, this may help reduce workers compensation claims or even death benefit payouts. Reductions in these costs are important budgetarily. Even more significant and impactful for our members and our community than these savings would be greater safety for our employees and avoiding line of duty deaths.

1.4 Current or potential sources of funding including subsidies or free products offered by vendors or governmental entities

The Seattle Fire Foundation has agreed to purchase and donate two to three ERAT including the full first year of operations and maintenance service to the Seattle Fire Department.

Expertise and References

Purpose

The following information is provided to ensure that Council has a group of experts to reference while reviewing the completed surveillance impact report (“SIR”). Any individuals or agencies referenced must be made aware ahead of publication that their information has been included. All materials must be available for Council to access or review, without requiring additional purchase or contract.

1.0 Other Government References

Please list any other government bodies that have implemented this technology and can speak to the implementation of this technology.

Pending confirmation by the agencies and their primary contact, we have redacted identifying information in this draft according to the directions provided for this section of the SIR.

Agency, municipality, etc.	Primary contact	Description of current use
Arizona	To be confirmed	Missing Persons, Suspicious Fire, Welfare Check, Traffic Assist, Agency Assist,
California, Jurisdiction 1	To be confirmed	Incident documentation (traffic collision diagramming, crime scene diagramming), Field operations support, Tactical operations support, Investigative support, Search and rescue, Explosive device investigation support, Hazardous material response, Illegal fireworks enforcement, Firefighting operation support, Fire investigation support, Disaster / mass casualty event response, Event planning and management, public works infrastructure inspection support
California, Jurisdiction 2	To be confirmed	Fires and rescues, monitoring hot spots to reduce risks from rekindle, video and thermal imaging, earthquake response, wildfire
Kentucky	To be confirmed	Distress button response, traffic collision documentation, suspicious person, fights, missing persons, Medical Emergency Response

Massachusetts, Jurisdiction 1	To be confirmed	Aerial footage from outside a structure or above a large wildfire or search area; building interior operations in hazardous indoor environments.
Massachusetts, Jurisdiction 2	To be confirmed	Search and rescue, fire responses.
Michigan	To be confirmed	Domestic Violence, 911 Hang up, Traffic Collision Documenting, Fire Dept. Support, Search and Rescue, Disaster Response
New York, Jurisdiction 1	To be confirmed	Locate hotspots, assess building stability, identify hazard areas inaccessible to personnel, Firefighter safety, aerial imagery, thermal imaging and heat detections, water and technical rescues
New York, Jurisdiction 2	To be confirmed	911 Hang up, Missing Persons, Property Check, Suspicious Persons, Teen Disturbances, Alarm Checks, Event Planning, Disaster Recovery
Oregon	To be confirmed	Document crime and crash scenes, monitor critical incidents from a distance, assistant with search and rescue. ERAT as First Responder.
Washington State, Jurisdiction 1	To be confirmed	ERAT as First Responder
Washington State, Jurisdiction 2	To be confirmed	ERAT as First Responder

2.0 Academics, Consultants, and Other Experts

Please list any experts in the technology under consideration, or in the technical completion of the service or function the technology is responsible for.

Agency, municipality, etc.	Primary contact	Description of current use
Oklahoma State University	To Be Confirmed	Unmanned Systems Research Institute, Oklahoma State University

University of Colorado, Boulder	To Be Confirmed	Research and Engineering Center for Unmanned Vehicles (RECUV)
Private company		Expecting integration of “drone as first responder” or DFR into 1000+ jurisdiction within the United States.

3.0 White Papers or Other Documents

Please list any publication, report or guide that is relevant to the use of this technology or this type of technology.

See [Appendix H: Bibliography](#)

Racial Equity Toolkit (“RET”) and engagement for public comment worksheet

Purpose

Departments submitting a SIR are required to complete an adapted version of the Racial Equity Toolkit (“RET”) in order to:

- Provide a framework for the mindful completion of the SIR in a way that is sensitive to the historic exclusion of vulnerable and historically underrepresented communities. Particularly, to inform the public engagement efforts departments will complete as part of the surveillance impact report.
- Highlight and mitigate any impacts on racial equity from the adoption and the use of the technology.
- Highlight and mitigate any disparate impacts on individuals or vulnerable communities.
- Fulfill the public engagement requirements of the surveillance impact report.

Adaptation of the RET for Surveillance Impact Reports

The RET was adapted for the specific use by the Seattle Information Technology Departments’ (“Seattle IT”) Privacy Team, the Office of Civil Rights (“OCR”), and Change Team members from Seattle IT, Seattle City Light, Seattle Fire Department, Seattle Police Department, and Seattle Department of Transportation.

Racial Equity Toolkit Overview

The vision of the Seattle Race and Social Justice Initiative (“RSJI”) is to eliminate racial inequity in the community. To do this requires ending individual racism, institutional racism and structural racism. The RET lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity.

1.0 Set Outcomes

1.1. Seattle City Council has defined the following inclusion criteria in the surveillance ordinance, and they serve as important touchstones for the risks departments are being asked to resolve and/or mitigate. Which of the following inclusion criteria apply to this technology?

- ☐ The technology disparately impacts disadvantaged groups.
- ☐ There is a high likelihood that personally identifiable information will be shared with non-City entities that will use the data for a purpose other than providing the City with a contractually agreed-upon service.
- ☒ The technology collects data that is personally identifiable even if obscured, de-identified, or anonymized after collection.

- Note: the data is not being recorded or stored but will be in a live video stream that can only be accessed by a small number of SFD responding personnel.

☐ The technology raises reasonable concerns about impacts to civil liberty, freedom of speech or association, racial equity, or social justice.

1.2 What are the potential impacts on civil liberties through the implementation of this technology? How is the department mitigating these risks?

Seattle Fire consulted with the Seattle Office of Civil Rights and ACLU to evaluate our proposed use of ERAT for potential impacts on civil liberties. The fact that Seattle Fire Department is not recording or sharing the livestream significantly reduces the potential for harm.

While there is a reduced risk, one potential impact could be when an individual or their property that is not part of the emergency response appears in the livestream (i.e. loss of autonomy and sense of privacy). To mitigate this potential risk, the ERAT will fly with “eyes on the horizon” until it arrives at the emergency incident latitude and longitude when its camera will point down to the city below. The ERAT will provide a livestream video only to Seattle Fire personnel who have gone through ERAT privacy training and are actively involved in the emergency response. The feed will not be shareable and only allowed to be viewed by approved Seattle Fire personnel. Additionally, the livestream will not be recorded or send personal identifiable information.

The public will be able to see when and the location where the ERAT has been dispatched using existing open government tools (e.g. Real-Time 911). A member of the public may also request information about a Seattle Fire response where the ERAT has been dispatched. As with all Seattle Fire dispatches, no personally identifiable information can be released through the public records process.

1.3 What are the risks for racial or ethnicity-based bias through each use or deployment of this technology? How is the department mitigating these risks?

Seattle Fire reviewed articles related to ERAT fire and life safety responses and spoke to a leading civil rights organization who focuses on surveillance technology to better understand the potential civil liberty questions and issues this new technology might create. Even with that research and input, Seattle Fire acknowledges it may learn additional concerns through the community engagement meetings. To this end, this section of the SIR may have gaps until community engagement takes place in July and August 2026.

Seattle Fire recognizes and acknowledges that even though we have no intention to use ERAT with cameras to surveil communities, there are community concerns related to surveillance technology used for mass surveillance. In places where ERATs are used by law enforcement, ERATs flying overhead can give people the feeling that they are being watched. This can cause people to monitor their actions due to the fear that they can be mistaken for suspicious behavior. Low income and BIPOC communities tend to be surveilled more heavily. (Stanley, 2023) (Evani Radiya-Dixit, 2023) (ACLU Wisconsin, 2025) Additionally, there are privacy concerns about the use of video and photos used to capture personal data that could be used for other purposes.

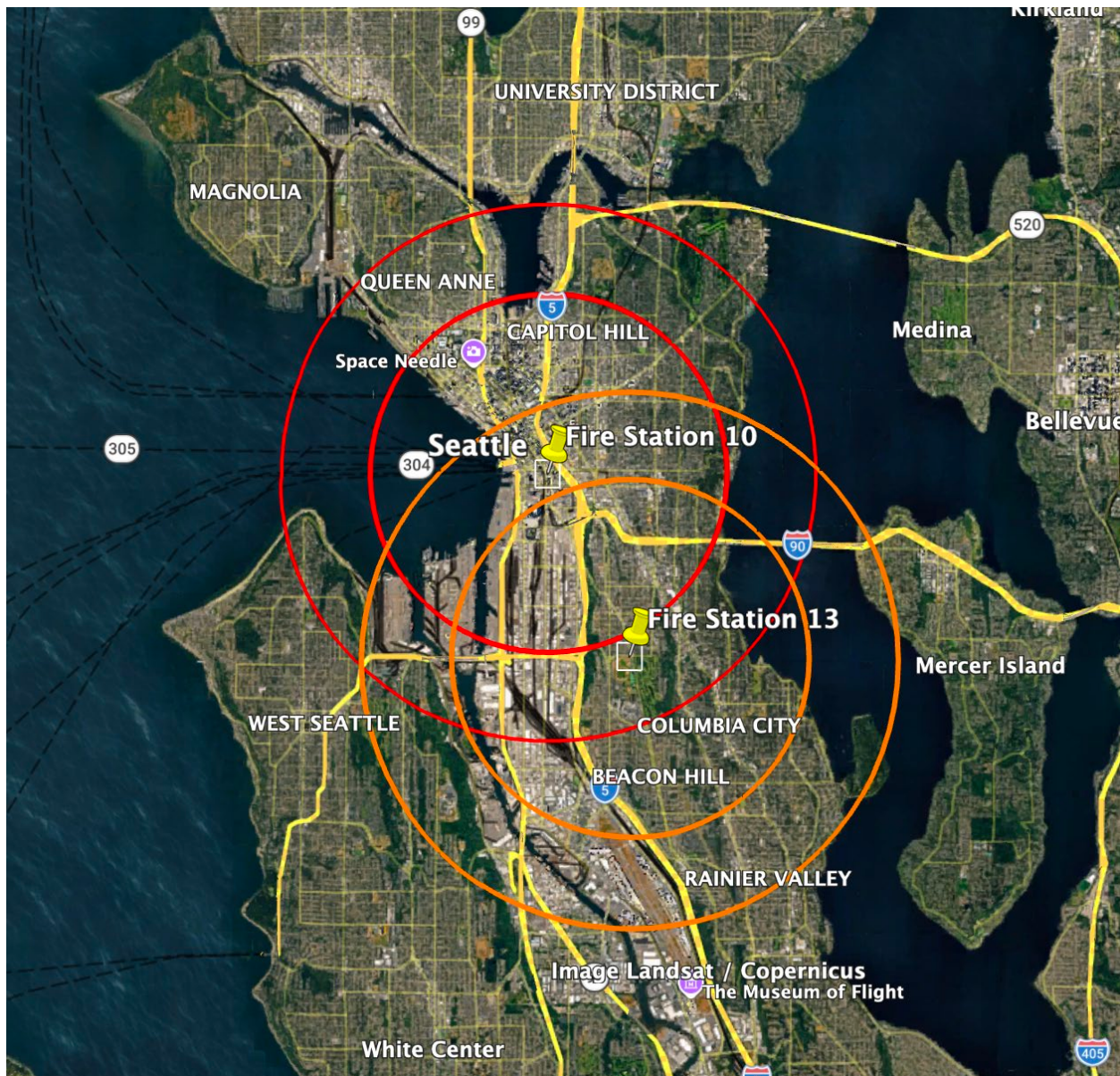
To mitigate these risks, Seattle Fire Firefighter/Dispatchers will send the ERAT to specific incident types that meet established criteria (see Project/Technology Overview section). The ERAT cameras will allow SFD incident command to monitor images in real time during an emergency incident. However, video images will not be recorded. The ERAT will provide a livestream feed only to a limited number of properly trained Seattle Fire Department Fire Alarm Center Firefighter/Dispatchers and Chief Officers actively involved in the emergency response. The link to the livestream will be encrypted and will only be provided to a small number of specifically designated employees based on their roles and permissions.

1.4 Where in the City is the technology used or deployed?

☒ all Seattle neighborhoods

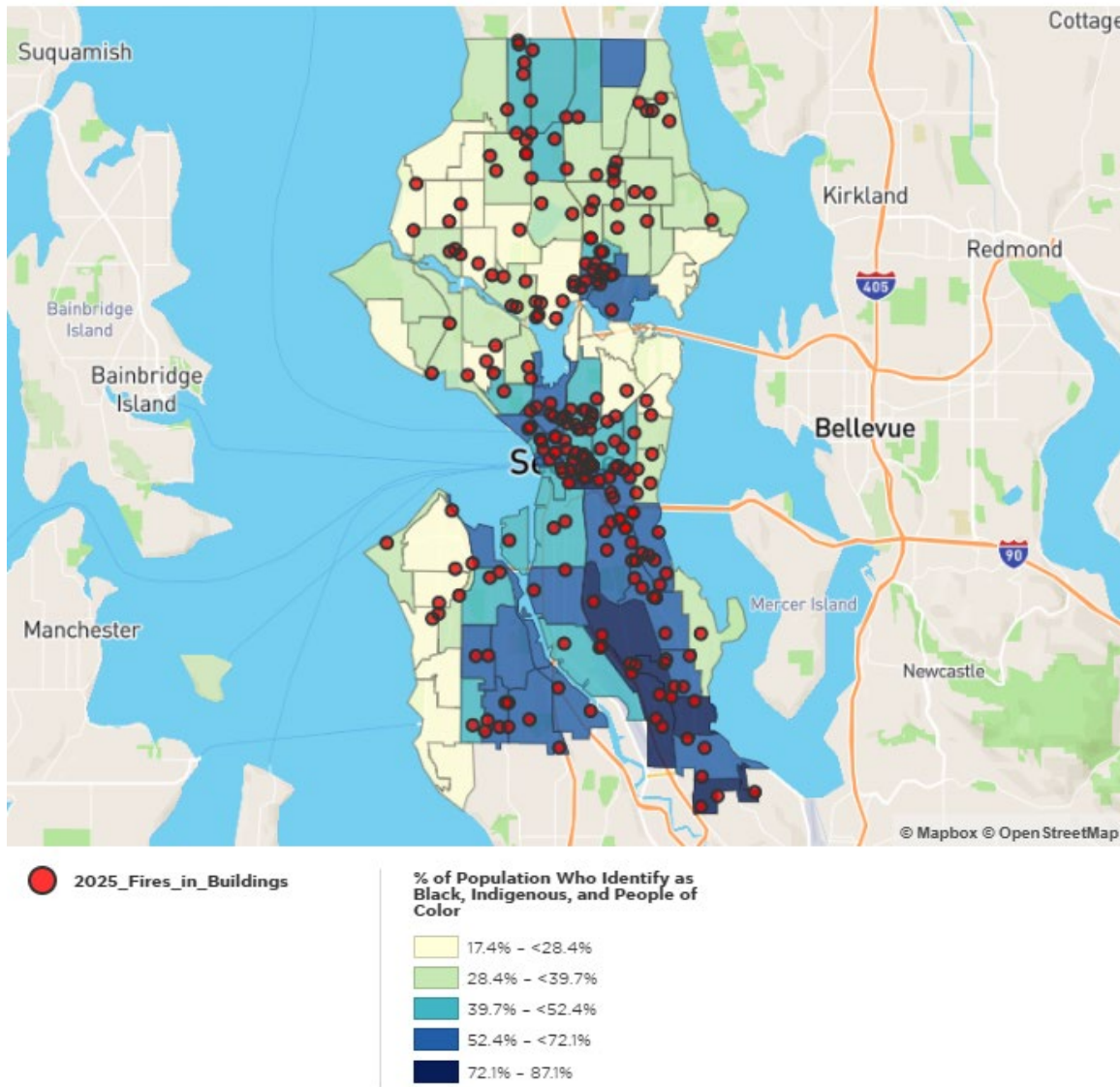
- | | |
|--|---|
| ☒ Ballard | ☒ Northwest |
| ☒ Belltown | ☒ Madison Park / Madison Valley |
| ☒ Beacon Hill | ☒ Magnolia |
| ☒ Capitol Hill | ☒ Rainier Beach |
| ☒ Central District | ☒ Ravenna / Laurelhurst |
| ☒ Columbia City | ☒ South Lake Union / Eastlake |
| ☒ Delridge | ☒ Southeast |
| ☒ First Hill | ☒ Southwest |
| ☒ Georgetown | ☒ South Park |
| ☒ Greenwood / Phinney | ☒ Wallingford / Fremont |
| ☒ International District | ☒ West Seattle |
| ☒ Interbay | ☐ King county (outside Seattle) |
| ☒ North | ☐ Outside King County. |
| ☒ Northeast | |

If possible, please include any maps or visualizations of historical deployments / use.



This map shows the two fire stations where the ERAT are proposed to be docked initially (Fire Station 10 and Fire Station 13). If approved, the anticipated range for deploying the ERAT will be citywide. If a third ERAT is donated by the organization that is providing ERAT to SFD, the third ERAT will be added to a third fire station to balance coverage and anticipated service need.

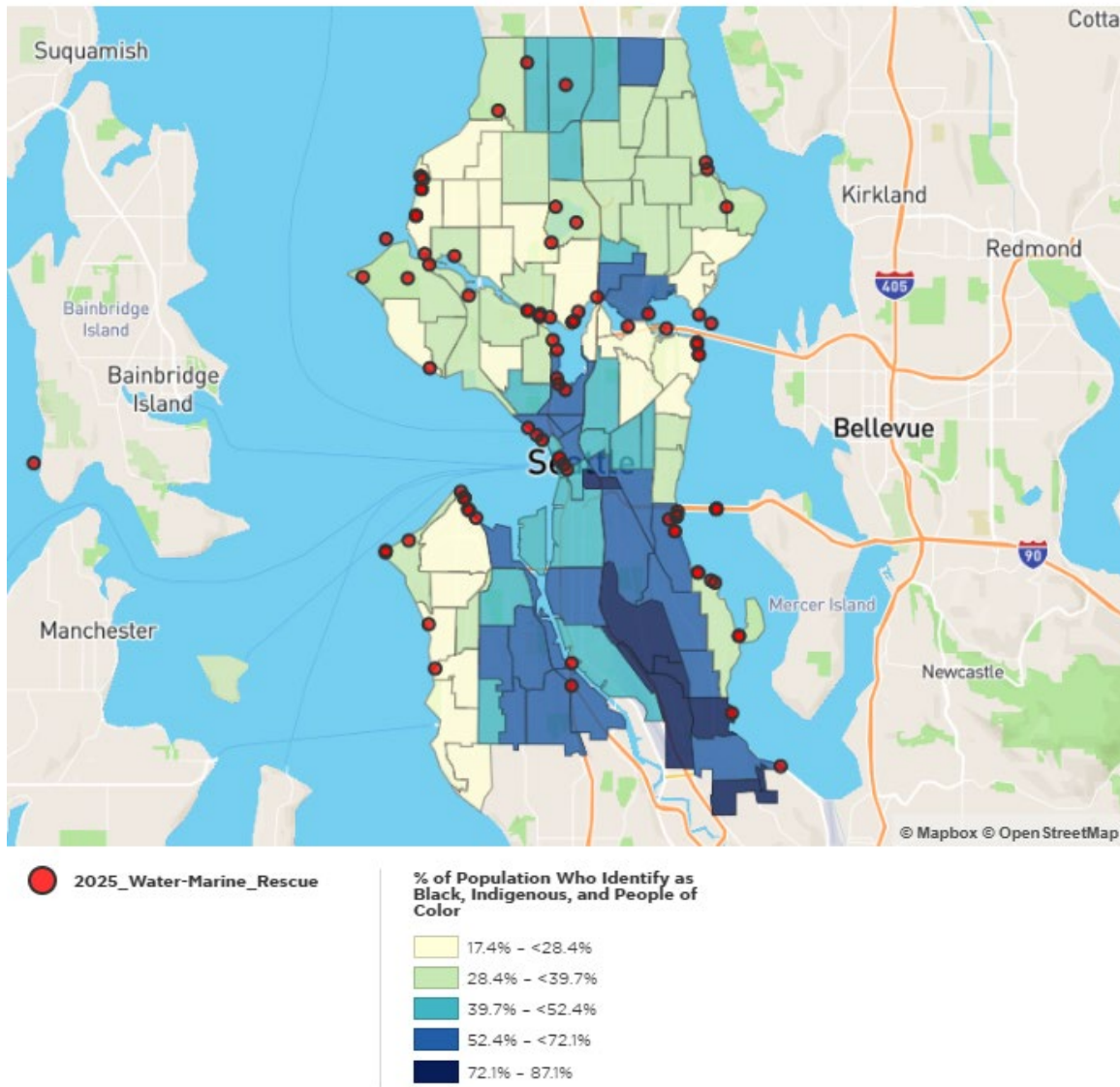
Fires in Buildings



Sources: US Census Bureau ACS 5-year 2020-2024

This map shows US Census data of the percentage of the population who identify as Black, Indigenous, and people of color and the location of building fire incidents SFD responded to in 2025. There were 243 Fire in Building responses in 2025.

Water/Marine Rescue



Sources: US Census Bureau ACS 5-year 2020-2024

This map shows the percentage of the population who identify as Black, Indigenous, and people of color and the location of water and marine rescue incidents SFD responded to in 2025. There were 97 water/marine rescue responses in 2025.

1.4.1 What are the racial demographics of those living in this area or impacted by these issues?

2024 American Community Survey (ACS) 1-Year Estimates

City of Seattle Race and Ethnicity:

- American Indian & Alaska Native – 0.3%
- Asian - 17.8%

- Black or African American – 6.7%
- Native Hawaiian & Other Pacific Islander – 0.3%
- White – 56.9%
- Another race – 0.5%
- Two or more races – 8.4%
- Hispanic or Latino ethnicity (of any race) – 9.1%

While one ERAT will be based at Fire Station 10 and another at Fire Station 13, the intent is to be deployed citywide to any of the designated emergency types identified in 2.0 Project/Technology Overview.

1.4.2 How does the Department ensure diverse neighborhoods, communities, or individuals are not specifically targeted through the use or deployment of this technology?

Although Seattle Fire’s use of ERAT is for fire, rescue and emergency medical services, we understand that peoples’ lived experience and multiple studies have shown biased use of surveillance technologies by law enforcement agencies. (Stanley, 2023)

Seattle Fire acknowledges these concerns, although our use would not be for surveillance or law enforcement purposes.

One of the main concerns for this type of technology is the potential sharing of the livestream with law enforcement or other surveillance purposes outside of Seattle Fire. To mitigate these potential issues, Seattle Fire will adhere to the following:

- The ERAT will only be dispatched to emergencies that meet specific criteria.
- The ERAT will not record images, audio or video.
- The ERAT will not be equipped with any surveillance equipment such as facial recognition.
- The livestream starts the moment the ERAT is dispatched. The ERAT will fly from the Fire Station to the dispatched latitude and longitude with “eyes on the horizon” in other words not pointing down at streets and neighborhoods. Once reaching the dispatched latitude and longitude, the ERAT will look down at the specific emergency location. The ERAT will fly with eyes on the horizon once it is directed to leave the incident and return to the fire station.
- The livestream link will only be provided to a limited number of Seattle Fire personnel (Firefighter/Dispatchers at the Fire Alarm Center and Chiefs who are in charge of the incident) who have taken privacy training related to the ERAT and are associated with that emergency reasons. The live stream link cannot be shared with other city departments, or other local or federal agencies.
- Third-party vendors will not have access to the livestream. All data collected about the ERAT (e.g. its flight path, battery levels, temperature, etc.) will be maintained on secure servers and contractually may only be accessed by the ERAT vendor if necessary for troubleshooting the technology.

Additionally, community engagement meetings will better inform Seattle Fire on any other concerns and issues not contemplated in this review.

1.5 How do decisions around data sharing have the potential for disparate impact on historically targeted communities? What is the department doing to mitigate those risks?

To avoid any issues associated with data storage and sharing, Seattle Fire will not record, share or save the livestream footage. SFD fire personnel will receive privacy training and follow policy and procedures to prevent the livestream from being viewed by anyone outside the Seattle Fire incident command team. The data collected will be specific to the ERAT's technical performance (e.g. maintenance history, flight logs, location). The vendor will be contractually prohibited from accessing or using any of these data except for technical trouble shooting purposes.

1.6 How do decisions around data storage and retention have the potential for disparate impact on historically targeted communities? What is the department doing to mitigate those risks?

To avoid any issues associated with data storage and retention, Seattle Fire will not record, share or save the livestream footage. Those able to monitor the livestream will be limited to Seattle Fire personnel who have received privacy training.

1.7 What are potential unintended consequences (both negative and positive potential impact)? What proactive steps can you / have you taken to ensure these consequences do not occur.

One proactive step Seattle Fire took was the decision to not record video or share the livestream feed. Only SFD personnel who have received specific privacy training will be able to view the livestream. Additionally, any third-party vendor will be contractually bound to honor the privacy policies of SFD and the city of Seattle.

The ACLU provides recommendations to help protect people's privacy. Many of those recommendations will shape the policies and practices of the ERAT project. These include:

- Only having a livestream feed viewed by certain SFD personnel.
- Not recording video or capturing images.
- Not sharing of livestream with non-SFD entities or individuals.
- Developing policies and practices that ensure the third-party vendor is contractually bound to honor the privacy policies of SFD and the city of Seattle.

2.0 Public Outreach

2.1 Organizations who received a personal invitation to participate.

Please include a list of all organizations specifically invited to provide feedback on this technology.

- Neighborhood Councils via DON liaisons
- ACLU-WA

- Seattle Office for Civil Rights

2.1 Scheduled public meeting(s).

Meeting notes, sign-in sheets, all comments received, and questions from the public will be included in Appendices. Comment analysis will be summarized in Section 3.0 Public Comment Analysis.

Location	El Centro de la Raza Centilia Cultural Center
Time	Wednesday, July 22 6-7:30 p.m.
Capacity	120

Location	Online
Time	Friday, July 24 11 a.m. to 12:30 p.m.
Capacity	Up to 3,000
Link to URL Invite	Zoom link or https://us02web.zoom.us/j/82804220057?pwd=TTiXXcAjoEH5UtcCPColplQtPablSm.1

Location	North Seattle Colleges Auditorium
Time	Thursday, July 30 6-7:30 p.m.
Capacity	250

Location	Online
Time	Saturday, Aug. 8, 2026 11 a.m. to 12:30 p.m.
Capacity	Up to 3,000
Link to URL Invite	Zoom link or https://us02web.zoom.us/j/82804220057?pwd=TTiXXcAjoEH5UtcCPColplQtPablSm.1

Public comment will also be accepted by the Office of Privacy through email, USPS mail and Microsoft Form.

- Email: privacy@seattle.gov during public comment period only
- USPS mail: 700 5th Ave, Attn: Privacy Team Floor 18, Seattle, WA 98104 (comments should be received before end of public comment date)

Residents may also provide comments when the legislation is heard by City Council.

3.0 Public Comment Analysis

This section will be completed after the public comment period has been completed on [DATE] by Privacy Office staff.

3.1 Summary of Response Volume

Dashboard of respondent demographics.

Xx

3.2 Question One: What concerns, if any, do you have about the use of this technology?

Dashboard of respondent demographics.

Xx

3.3 Question Two: What value, if any, do you see in the use of this technology?

Dashboard of respondent demographics.

Xx

3.4 Question Three: What would you want City leadership to consider when deciding about the use of this technology?

Xx

3.5 Question Four: General response to the technology.

Xx

3.5 Surveillance Comments

These are comments received for technology currently under review.

Xx

4.0 Response to Public Comments

This section will be completed after the public comment period has been completed on [DATE].

4.1 How will you address the concerns that have been identified by the public?

What program, policy and partnership strategies will you implement? What strategies address immediate impacts? Long-term impacts? What strategies address root causes of inequity listed above? How will you partner with stakeholders for long-term positive change?

Xx

5.0 Equity Annual Reporting

5.1 What metrics for this technology be reported to the CTO for the annual equity assessments?

Xx

Privacy and Civil Liberties Assessment

Purpose

This section shall be completed after public engagement has concluded and the department has completed the racial equity toolkit section above. The privacy and civil liberties assessment is completed by the community surveillance working group (“working group”), per the surveillance ordinance which states that the working group shall:

“Provide to the executive and the City Council a privacy and civil liberties impact assessment for each SIR that must be included with any departmental request for surveillance technology acquisition or in-use approval. The impact assessment shall include a description of the potential impact of the surveillance technology on civil rights and liberties and potential disparate impacts on communities of color and other marginalized communities. The CTO shall share with the working group a copy of the SIR that shall also be posted during the period of public engagement. At the conclusion of the public engagement period, the CTO shall share the final proposed SIR with the working group at least six weeks prior to submittal of the SIR to Council for approval. The working group shall provide its impact assessment in writing to the executive and the City Council for inclusion in the SIR within six weeks of receiving the final proposed SIR. If the working group does not provide the impact assessment before such time, the working group must ask for a two-week extension of time to City Council in writing. If the working group fails to submit an impact statement within eight weeks of receiving the SIR, the department and City Council may proceed with ordinance approval without the impact statement.”

Working Group Privacy and Civil Liberties Assessment

Respond here.

Submitting Department Response

Description

Provide the high-level description of the technology, including whether software or hardware, who uses it and where/when.

xx

Purpose

State the reasons for the use cases for this technology; how it helps meet the departmental mission; benefits to personnel and the public; under what ordinance or law it is used/mandated or required; risks to mission or public if this technology were not available.

The purpose of the Seattle Fire Department ERAT program is to enhance capabilities of fire department first responders to save lives, protect property and the environment. This will be accomplished using live stream camera information provided to the SFD operator and incident commander and other officers with a need and permissions to access the live stream. The camera data is not recorded and will not be used to identify specific individuals.

Benefits to the Public

Provide technology benefit information, including those that affect departmental personnel, members of the public and the City in general.

xx

Privacy and Civil Liberties Considerations

Provide an overview of the privacy and civil liberties concerns that have been raised over the use or potential misuse of the technology; include real and perceived concerns.

xx

Summary

Provide summary of reasons for technology use; benefits; and privacy considerations and how we are incorporating those concerns into our operational plans.

xx

Appendix A: Glossary

Accountable: (taken from the racial equity toolkit.) Responsive to the needs and concerns of those most impacted by the issues you are working on, particularly to communities of color and those historically underrepresented in the civic process.

Community outcomes: (taken from the racial equity toolkit.) The specific result you are seeking to achieve that advances racial equity.

Contracting equity: (taken from the racial equity toolkit.) Efforts to achieve equitable racial outcomes in the way the City spends resources, including goods and services, consultants and contracting.

DON: “department of neighborhoods.”

Immigrant and refugee access to services: (taken from the racial equity toolkit.) Government services and resources are easily available and understandable to all Seattle residents, including non-native English speakers. Full and active participation of immigrant and refugee communities exists in Seattle’s civic, economic, and cultural life.

Inclusive outreach and public engagement: (taken from the racial equity toolkit.) Processes inclusive of people of diverse races, cultures, gender identities, sexual orientations, and socio-economic status. Access to information, resources, and civic processes so community members can effectively engage in the design and delivery of public services.

Individual racism: (taken from the racial equity toolkit.) Pre-judgment, bias, stereotypes about an individual or group based on race. The impacts of racism on individuals including white people internalizing privilege, and people of color internalizing oppression.

Institutional racism: (taken from the racial equity toolkit.) Organizational programs, policies or procedures that work to the benefit of white people and to the detriment of people of color, usually unintentionally or inadvertently.

OCR: “Office of Civil Rights.”

Opportunity areas: (taken from the racial equity toolkit.) One of seven issue areas the City of Seattle is working on in partnership with the community to eliminate racial disparities and create racial equity. They include education, health, community development, criminal justice, jobs, housing, and the environment.

Racial equity: (taken from the racial equity toolkit.) When social, economic, and political opportunities are not predicted based upon a person’s race.

Racial inequity: (taken from the racial equity toolkit.) When a person’s race can predict their social, economic, and political opportunities and outcomes.

RET: “racial equity toolkit”

Seattle neighborhoods: (taken from the racial equity toolkit neighborhood.) Boundaries defined for the purpose of understanding geographic areas in Seattle.

Stakeholders: (taken from the racial equity toolkit.)

Those impacted by proposed policy, program, or budget issue who have potential concerns or issue expertise. Examples might include specific racial/ethnic groups, other institutions like Seattle housing authority, schools, community-based organizations, change teams, City employees, unions, etc.

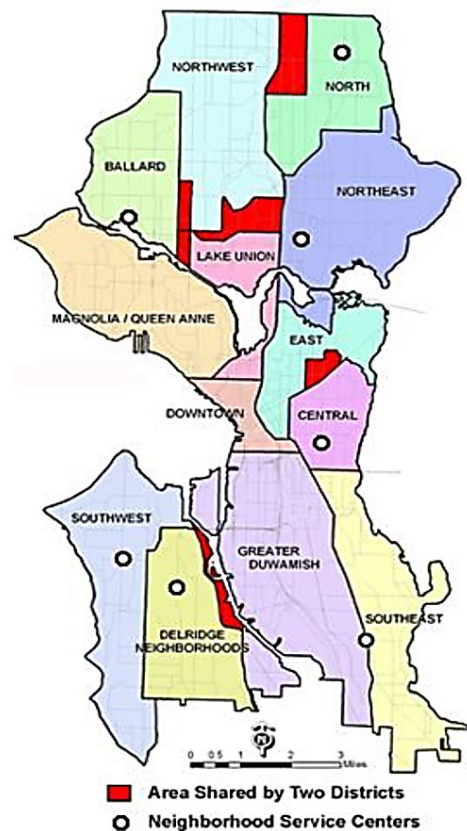
Structural racism: (taken from the racial equity toolkit.)

The interplay of policies, practices, and programs of multiple institutions which leads to adverse outcomes and conditions for communities of color compared to white communities that occurs within the context of racialized historical and cultural conditions.

Surveillance ordinance: Seattle City Council passed ordinance [125376](#), also referred to as the “surveillance ordinance.”

SIR: “surveillance impact report”, a document which captures the fulfillment of the Council-defined surveillance technology review process, as required by ordinance [125376](#).

Workforce equity: (taken from the racial equity toolkit.) Ensure the City's workforce diversity reflects the diversity of Seattle.



Appendix B: Questions and Department Responses

To be completed after public comment has been received and documented (note as of 6/30/2026)

Appendix C: Meeting Notice(s)

To be completed after meeting notices are created (note as of 6/30/2026)

Appendix D: Additional Comments Received from Members of the Public*

To be completed after public comment has been received and documented (note as of 6/30/2026)

**Appendix D refers to submissions outside of the Online Form survey*

Appendix E: Letters from Organizations or Commissions

To be completed after public comment has been received and documented and proposed policies are updated and put through to final drafts (note as of 6/30/2026)

Appendix F: Supporting Policy Documentation

To be completed after public comment has been received and documented and proposed policies are updated and put through to final drafts (note as of 6/30/2026)

Seattle Fire Department Emergency Response Aerial Technology (ERAT) Use Policy **Draft as of 6/30/2026**

Purpose

This policy is meant to inform and regulate the use of Emergency Response Aerial Technology (ERAT) by the Seattle Fire Department (SFD) and our ERAT contractor operating on behalf of SFD. ERAT technology acquired, even if through partnerships or contract with a third party, must still follow the provisions of all regulations and laws, including the Surveillance Ordinance, as well as adhering to the City's privacy and security requirements and this policy. This policy will outline ERAT and its subject components, operator requirements, procedures, compliance, and other related matters, to ensure safe, efficient, and lawful use of ERAT.

The purpose of the Seattle Fire Department ERAT program is to enhance SFD's lifesaving emergency response capabilities when we respond to any member of the public who needs our help, and to improve firefighter safety.

Scope

This policy applies to the usage of ERAT by SFD employees as well as by any contractor or consultant that is acting on behalf of the Seattle Fire Department to conducting SFD business. No others are authorized to operate SFD ERAT or access ERAT videos.

Contractors or consultants hired to perform work related to SFD's use of ERAT are required to be provided with this policy, and will be required to comply with the standard provisions herein. All such contracts will include terms reflective of this requirement, as well as terms regarding operating requirements, safety, data management, and security.

This policy does not address:

- ERAT used by the public (e.g. hobbyists)
- Manned Aerial Systems (aircraft, helicopters, etc.)
- Other unmanned or uncrewed equipment (remotely-operated vehicles/cameras)

ERAT and Component Definition

SFD's Emergency Response Aerial Technology (ERAT) is also known as a drone. It is defined as an uncrewed aircraft and the associated equipment necessary for the safe and efficient operation of that aircraft. The uncrewed aircraft component is defined by statute as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft (Public Law 112-95, Section 331(8)).

Surveillance Review

ERAT technologies will be subject to a surveillance review as required by the Seattle Municipal Code (SMC) 14.18. This section requires the completion of a surveillance criteria review prior to acquisition of ERAT. If the ERAT is determined to be a surveillance technology it must complete the Surveillance Impact Report process, as defined in Ordinance 125376, including a full Council vote, prior to acquisition.

Should the ERAT features, functionality, or SFD's use cases change beyond emergency response, after the effective date of this policy, it will need to be re-reviewed to ensure the previous determination under this section is still accurate.

Applications and Use Cases

SFD will operate ERAT for emergency response including the following 911 emergency incidents:

- Water/Marine Rescue,
- Marine/Shipboard Firefighting Operations,
- Fires in Buildings,
- Brush Fires/Wildland Urban Interface Fires,
- Hazardous Materials and Energy Responses,
- Post-Earthquake and Post-Disaster Assessment,
- Mass Casualty Incidents,
- Technical Rescues,
- Railcar/Railway Responses, and
- Equipment lifts for remote medical/rescue interventions (such as bringing a floatation device to a person who is trouble in the water).

Pilot and Operator Qualifications and Required Training

For approval for Federal Aviation Administration (FAA) Certification of Authorization (COA) and/or per [Title 14 of the Code of Federal Regulations \(14 CFR\) Part 107](#), pilots must be FAA licensed for operations of ERAT. For public safety operations conducted as [Public Aircraft Operations \(PAO\)](#) under [14 CFR Part 91](#), operators are not required to hold a Part 107 Remote Pilot Certificate but must maintain other qualifications as required by the FAA.

All pilots and operators shall be trained and qualified in accordance with the FAA requirements.

All SFD employees shall be trained on City of Seattle/SFD privacy requirements with additional training for operators and those on duty personnel who receive access to the live stream video feed for emergency response purposes.

SFD shall maintain documented training and qualification records for all personnel operating ERAT operations.

Aircraft Registration

All uncrewed aircraft operated by the department shall be:

- Registered with the FAA in accordance with applicable FAA registration requirements, and
- Listed or otherwise identified in the agency's approved FAA-issued Certificate of Authorization (COA), when required.

All required documentation shall be current and available for inspection.

Operating Team

Teams operating a ERAT should consist of (at minimum): Pilot-in-Command & Visual Observer. The ERAT will be operated only by trained and FAA Certified Remote Pilots. Under Part 91 operations, ERAT operations shall be conducted by an approved operating crew in accordance with the agency's COA and operating procedures. At a minimum, crews shall consist of:

- a Pilot in Command (PIC), and
- a Visual Observer (VO), unless the COA specifically authorizes operations without a VO.

Only personnel who are trained and qualified under the department's approved training program may act as PIC or VO.

Pre-Flight Requirements

Prior to each operation, personnel shall conduct pre-flight checks in accordance with the FAA rules and/or COA when applicable.

Flight Operations

[14 CFR Part 107](#) mandates the following operational limitations:

- Uncrewed aircraft must weigh less than 55 lbs. (25 kg).
- Visual line-of-sight (VLOS) only; the uncrewed aircraft must remain within VLOS of the remote pilot in command and the person manipulating the flight controls of the small ERAT. Alternatively, the uncrewed aircraft must remain within VLOS of the visual observer.
- At all times the small uncrewed aircraft must remain close enough to the remote pilot in command and the person manipulating the flight controls of the small ERAT for those people to be capable of seeing the aircraft with vision unaided by any device other than corrective lenses.
- Small uncrewed aircraft are permitted to operate over people, provided the small uncrewed aircraft: Weigh 0.55 pounds or less, including everything that is on board or otherwise attached to the aircraft at the time of takeoff and throughout the duration of each operation. Contain no exposed rotating parts that would cause lacerations.
- Daylight-only operations, or civil twilight (30 minutes before official sunrise to 30 minutes after official sunset, local time) with appropriate anti-collision lighting.
- Must yield right of way to other aircraft.
- May use visual observer (VO) but not required.
- First-person view camera cannot satisfy "see-and-avoid" requirement but can be used as long as requirement is satisfied in other ways.
- Maximum groundspeed of 100 mph (87 knots).

- Maximum altitude of 400 feet above ground level (AGL) or, if higher than 400 feet AGL, remain within 400 feet of a structure.
- Minimum weather visibility of 3 miles from control station.
- Operations in Class B, C, D and E airspace are allowed with the required ATC permission.
- Operations in Class G airspace are allowed without ATC permission.
- No person may act as a remote pilot in command or VO for more than one uncrewed aircraft operation at one time.
- No operations from a moving aircraft.
- No operations from a moving vehicle unless the operation is over a sparsely populated area.
- No careless or reckless operations.
- No carriage of hazardous materials.
- Requires pre-flight inspection by the remote pilot in command.
- A person may not act as a crewmember if they know or have reason to know of any physical or mental condition that would interfere with safe operation. Each ERAT crew member is responsible for their own safety and should assess their own limitations, notifying their supervisor immediately when a task or conditions are beyond their capability, training, or if they believe a situation is unsafe.

[14 CFR Part 91](#) mandates the following operational limitations as outlined by the department's FAA-issued Certificate of Authorization (COA). Unless otherwise authorized by the COA, the following operational requirements apply:

- The ERAT shall be operated only in accordance with the operational parameters and limitations approved in the COA.
- The Pilot in Command is directly responsible for, and is the final authority over, the safe conduct of the operation.
- The uncrewed aircraft shall be operated in a manner that satisfies the **see-and-avoid and right-of-way responsibilities** contained in [14 CFR §91.113](#).
- Visual line-of-sight (VLOS) shall be maintained by the PIC and/or a Visual Observer, unless the COA specifically authorizes otherwise.
- The ERAT shall yield right of way to all crewed aircraft.
- First-person-view (FPV) or onboard cameras may not be used as the sole means of meeting see-and-avoid responsibilities.
- Operations over people are only permitted when specifically authorized by the agency's COA and operating procedures.
- Day, night, and low-light operations shall be conducted only if authorized by the COA and supported by required training and equipment.
- Maximum altitude, lateral operating area, and containment volumes shall comply with the limitations defined in the COA.
- Operations in controlled or special use airspace shall be conducted only as authorized in the COA and any required coordination procedures.

- No person may act as Pilot in Command or Visual Observer for more than one uncrewed aircraft operation at a time unless the COA specifically authorizes otherwise.
- Operations from moving vehicles or aircraft are permitted only if specifically authorized by the COA.
- No careless or reckless operation may be conducted.
- Carriage of hazardous materials is prohibited unless explicitly authorized.
- A pre-flight inspection shall be conducted by the Pilot in Command prior to each operation.
- A person may not act as a crewmember if they know or have reason to know of any physical or mental condition that would interfere with safe operation. Each ERAT crew member is responsible for their own safety and should assess their own limitations, notifying their supervisor immediately when a task or conditions are beyond their capability, training, or if they believe a situation is unsafe.

Remote Identification

All ERAT operated by the department shall comply with applicable FAA Remote Identification requirements, unless specifically exempted by regulation or the agency's COA.

Flight Logs

The department shall maintain ERAT flight logs in accordance with rules of Washington State and COA requirements. Flight records for each flight shall include: its date, time, and duration; the aircraft registration number; the purpose of the operation; the flight path including destination, origin, and altitudes; the name of the designated operations personnel assigned to each flight; and landing locations.

Public Record Requirements

The following records shall be retained for the periods required under Washington law and destroyed at the completion of the retention period.

Under the laws of the State of Washington including Disposition Authority Numbers (DANs):

- RCW 42.56 – State of Washington Public Records
- Retention of Flight and Use Logs: Usage and Dispersal (Assets) (DAN GS2012-045)
- Maintenance – Major and/or Regulated (DAN GS2012-039)
- Maintenance – Minor Non-Regulated (DAN GS2012-040)
- Pre- and Post-Flight Inspection Records for the ERAT - Inspections/Monitoring – Regulated (Non-Environmental) (DAN GS2012-038)
- Pre- and Post-Flight Inspection Records for the ERAT - Inspections/Monitoring – Non-Regulated (DAN GS2012-037)
- Reports to Federal Aviation Administration (FAA) (example: as air space incursions) - Reporting/Filing (Mandatory) – Assets (DAN GS2012-044)

The video feed including thermal images will not be recorded or stored.

Data Management Review

Audit logs of data, data access, data modification, and data deletion shall be maintained and available for SFD review or review by other authorized auditor including the City of Seattle Auditor's Office.

Limited Scope of Operation

Use of ERAT equipment should be focused, limited, and controlled. SFD operators of ERAT must have a definitive emergency need for the use of ERAT. Personnel should balance the use of ERAT against other means of gathering information to aid emergency rescue and response operations, assessing whether alternative means are the same or better for public safety and fire fighter safety and less intrusive than the deployment of ERAT.

Prohibited Uses

Any flight parameters prohibited by 14 CFR Part 107 certification rules and/or 14 CFR Part 91 are prohibited unless waivers through the FAA have been acquired prior to performing flight operations.

In addition, SFD ERAT shall not be used:

- For non-emergency purposes.
- By any employee who is not properly trained in required privacy requirements.
- To store any images or video.
- To conduct random surveillance of residents or target individuals based solely on individual characteristics such as but not limited to: Race, Ethnicity, National origin, Religion, Disability, Gender or sexual orientation, Age.
- To harass or intimidate any individuals or groups.
- To conduct personal business of any kind.

Privacy

SFD personnel operating an ERAT shall be aware of privacy rights and shall take precautions to prevent sharing of live video feed.

- ERAT live video feed images and information may not be shared with anyone outside of SFD to include no sharing with other City departments, or other local, state or federal agencies.
- ERAT shall adhere to FAA altitude rules.
- ERAT shall travel to incidents with an "eyes up" approach until at the defined incident location.
- SFD trained and authorized users will not copy, store, share, transmit or download any data obtained from ERAT.
- Employees and supervisors are responsible to prevent unauthorized viewing of ERAT video feeds while ERAT are in use streaming live video.
- Live video feeds will be sent by encrypted link to authorized users only. Two-factor authentication will be used for authorized users. Video stream access links are incident specific, and shall expire once the incident is closed.

- No vendor access is allowed to the data except for technical troubleshooting purposes.
- Video feeds (to include audio and thermal imaging) will not be stored. Other data such as flight times and durations, latitude/longitude, and operator, will be stored in compliance with Washington administration codes and applicable SMC.
- Commercially available privacy screen protectors will be added to applicable devices to limit inadvertent viewing.

All SFD employees shall receive privacy awareness training. SFD ERAT operators and on duty employees who receive access to the encrypted link to the live video feed for emergency response purposes shall complete annual privacy training.

Compliance

Auditing

Audits of SFD's use of ERAT may be conducted by the City Auditor's Office. The vendor shall retain data in their system for the retention periods required under Washington law. SFD shall maintain records of inspections, maintenance, FAA reports and other records about the ERAT operation that will allow for greater transparency and accountability. SFD shall maintain records of training completion.

Non-Compliance

Enforcement of this policy will be led by the Chief of the Seattle Fire Department (Fire Chief) and may be imposed by individual officers. Non-compliance may result in disciplinary action, restriction of access, or termination of vendor contract.

Related Standards and Policies

- Public Law 112-95, Section 331(8) – defines ERAT
- Seattle Municipal Code Chapter 14 Section 18 - requires that ERAT undergo a privacy and surveillance review as defined in
- City of Seattle Ordinance 125376 – Updates to original Surveillance Ordinance
- Title 14 of the Code of Federal Regulations, part 107 – ERAT operational requirements
- Title 14 of the Code of Federal Regulations, part 91 – ERAT operational requirements
- Revised Code of Washington 42.56 – State of Washington Public Records

Roles and Responsibilities

- **City's Privacy Program:** Responsible for determining whether a technology is a surveillance technology under SMC 14.18, and is accountable to both the Executive and City Council for reporting these determinations quarterly.
- **Pilot in Command:** Responsible for operating the ERAT consistent with FAA rules and regulations and City of Seattle privacy policies.
- **Visual Observer:** Responsible for observing ERAT flights consistent with FAA rules and regulations and City of Seattle privacy policies.

- **Firefighter at station where ERAT is stored:** Responsible for daily visual inspections or the equipment components as part of required pre-flight checks.
- **Chief of Training:** Responsible for all SFD members' privacy training completion.
- **Public Disclosure Officer:** Responsible for quarterly reviews of the vendor's data to confirm video feeds are not being stored and that other records are being retained/destroyed according to Washington State law; responsible for other periodic support and oversight to SFD's ERAT records retention compliance.
- **ERAT Program Coordinator:** Responsible for supporting and providing oversight to SFD's compliance with FAA rules and regulations including training requirements and daily operational requirements; receiving and following up on notifications of any improper disclosure of live video feeds; ensuring compliance with data retention requirements for those elements that are created outside of the vendor's system such as inspection and maintenance records.
- **Fire Chief:** Responsible for oversight and enforcement of rules and policies to support public safety, fire fighter safety, and compliance with all laws of the City of Seattle, State of Washington and federal government.

Contacts

Role	Name/Title	Email
Fire Chief	Harold Scoggins	Harold.scoggins@seattle.gov

Authority

This policy is governed by the City of Seattle Surveillance Ordinance, City of Seattle Privacy Policy and Privacy Principles, as well as the City's security and compliance requirements. This policy does not replace any existing policies regarding security or compliance and should only complement them.

This policy is governed by FAA requirements related to flight operations for uncrewed aircraft.

Document Control

Effective Date

This policy shall be effective on [INSERT DATE HERE]

Review Cycle

Version	Content	Contributors	Approval Date
---------	---------	--------------	---------------

1	First Draft	Dan Hess (SFD), Karen Grove (SFD), Sarah Carrier (ITD)	
---	-------------	--	--

Appendix G: List of SFD Emergency Calls/Incident Types Where ERAT is Proposed for Use (2025 Data)

Category	Dispatch Type	2025 Count	2025 Total
Water/Marine Rescue	RESSBW	2	97
	RESWA	73	
	RESWAM	0	
	MARSINKS	10	
	MARSINKW	12	
Marine/Shipboard Firefighting Operations	MARFIRES	3	5
	MARFIREW	2	
Fires in Buildings	FIB	237	243
	FIBHI	6	
Brush Fires/Wildland Urban Interface Fires	BRSH	579	615
	BRSHF	28	
	BRSHMJ	0	
	BRSHX	8	
Hazardous Materials and Energy Responses	HAZ	9	60
	HAZADV	13	
	HAZD	0	
	HAZF	0	
	HAZMCI	0	
	HAZRAD	0	
	HAZRED	23	
	ENERGY	13	
	ENERGYADV	2	
Real Time Incident Situation Report (This Category Also Includes Post-Earthquake Assessment Although None in 2025)	RESMAJ	6	992
	WIRES	131	
	TRANSF	47	
	1RED	808	
Mass Casualty Incidents	MCI	5	424
	MCIMAJ	0	
	SOV	0	
	SOV7	324	
	SOVMAJ	3	
	SOV14	20	
	SOVA	72	

Appendix G: List of SFD Emergency Calls/Incident Types Where ERAT is Proposed for Use (2025 Data) (Cont'd)

Category	Dispatch Type	2025 Count	2025 Total
Technical Rescues	RESCS	1	153
	RESEXT	102	
	RESICE	0	
	RESMAJ	6	
	RESROP	14	
	RESSBY	30	
	RESTR	0	
Railcar/Railway Responses	MOMOF	0	0
	TRAINR	0	
	TANKER	0	
Equipment lifts for remote medical/rescue interventions (such as bringing a floatation device to a person who is trouble in the water)	New	New	New
Subtotal - ERAT Emergency Calls			2,589
Total Calls			197,926
ERAT-Related Calls as % Total SFD Emergency Calls			1.3%

SFD is proposing to deploy ERAT for the incident types listed in this SIR and consistent with 2021 Seattle Fire Code 104.12, "Authority at fires and other emergencies". In case of fire emergency or significant incident, the Fire Chief is authorized to direct operations to extinguish the fire, perform rescue and investigate hazardous conditions such as gas leaks.

Appendix H: Bibliography

Works Cited

- ACLU Wisconsin. (2025, February 26). *Surveillance is a Racial Justice Issue*. Retrieved from ACLU Wisconsin: <https://www.aclu-wi.org/news/surveillance-racial-justice-issue/>
- Department of Fire Services, Massachusetts. (2025, December 15). *DFS Adds New Interior Drone Resources to Support Fire/Rescue Operations*. Retrieved from Mass.gov: <https://www.mass.gov/news/dfs-adds-new-interior-drone-resources-to-support-firerescue-operations>
- EENA. (2017). *Drone Efficacy Study*. Retrieved from EENA.org: <https://eena.org/drone-efficacy-study-project/>
- Evani Radiya-Dixit, N. T. (2023, August). *Race and Surveillance Brief*. Retrieved from Stanford Center for Comparative Studies in Race & Ethnicity: https://ccsre.stanford.edu/sites/ccsre/files/media/file/race_and_surveillance_brief_final.pdf
- Hoey, I. (2025). FDNY conducts weeklong drone technology assessment. *International Fire and Safety Journal*, online.
- Horn, M. (2024, October 14). *FDNY's Robotics Program: Enhancing Fire Safety Through Innovation*. Retrieved from Innovate Energy: <https://innovateenergynow.com/resources/fdnys-robotics-program-enhancing-fire-safety-through-innovation>
- Marks, M. (2026, January 22). *96-year-old woman pulled from burning apartment after drone spots heavy flames*. Retrieved from fox4news.com: <https://www.fox4news.com/news/drone-fire-police-operation-euless-fire>
- McFarland, M. (2015, July 2). *This fire chief used his drone to help deliver a life vest to a stranded kid*. Retrieved from Washington Post: <https://www.washingtonpost.com/news/innovations/wp/2015/07/02/this-fire-chief-used-his-drone-to-help-deliver-a-life-vest-to-a-stranded-kid/>
- Petrillo, A. (2024, October 1). *Drone Special Ops Units Popping Up in Fire Departments Around the Country*. Retrieved from Fire Apparatus Magazine: <https://www.fireapparatusmagazine.com/magazine/drone-special-ops-units-popping-up-in-fire-departments-around-the-country/>
- Sanz-Martos et al. (2022, June). *Drone Applications for Emergency and Urgent Care: A Systematic Review*. Retrieved from <https://pmc.ncbi.nlm.nih.gov/articles/PMC9280065/>
- Schlenker, C. (2022, January 3). *Bloomington Fire Department drones save time and boost safety*. Retrieved from WGLT.org: <https://www.wglrt.org/local-news/2022-01-03/bloomington-fire-department-drones-save-time-and-boost-safety>
- Stanley, J. (2023, July 27). *Eye-in-the-Sky Policing Needs Strict Limits*. Retrieved from ACLU: <https://www.aclu.org/documents/eye-in-the-sky-policing-needs-strict-limits>

Wankmüller et al. (2021, November). *Drones in emergency response – evidence from cross-border, multi-disciplinary usability tests*. Retrieved from International Journal of Disaster Risk Reduction:
<https://www.sciencedirect.com/science/article/abs/pii/S2212420921005288>

Works Referenced

- Baker, Ryan. (2025, June 27). *Drones for the Fire Service: No Longer Flying Under the Radar*. Retrieved from Firehouse Magazine:
<https://www.firehouse.com/technology/drones/article/55289391/drones-for-the-fire-service-no-longer-flying-under-the-radar>
- Calams, Sarah. (2018, February 20). *6 takeaways on how fire departments are using drones and the barriers preventing purchase*. Retrieved from Fire Rescue One Magazine:
<https://www.firerescue1.com/emergency-response-in-the-drone-age/articles/6-takeaways-on-how-fire-departments-are-using-drones-and-the-barriers-preventing-purchase-CDQozj7OMa49hjHd/>
- DaViera et al. (2023, April 17). *Risk, race, and predictive policing: A critical race theory analysis of the strategic subject list*. Retrieved from American Journal of Community Psychology:
<https://onlinelibrary.wiley.com/doi/full/10.1002/ajcp.12671>
- Federal Aviation Administration (FAA). (n.d.). *Beyond Visual Line of Sight (BVLOS) Fact Sheet*. Retrieved from https://www.faa.gov/newsroom/fact_sheets/Fact_Sheet_BVLOS.pdf
- Federal Aviation Administration (FAA). (2023). *Study on Fire Department and Emergency Service Agency Use of Unmanned Aircraft Systems*. Retrieved from
https://www.faa.gov/sites/faa.gov/files/P.L.115-254_Sec.359_Fire_Department_and_Emergency_Service_Agency_Use_of_UAS_COMPLETE.pdf
- International Association of Fire Chiefs (IAFC). (n.d.). *Unmanned Aerial Systems (UAS) Toolkit*. Retrieved from <https://www.iafc.org/topics-and-tools/technology/uas-toolkit>
- Los Angeles Fire Department (LAFD). (2017). *LAFD USE and Policy*. Retrieved from
https://ens.lacity.org/lafd/lafdreportarchv/lafdlafdreport1864114659_09052017.pdf
- Jacob, J. & Murphy, H. (2022). *Public Safety Small Unmanned Aerial Systems*. Retrieved from National Fire Protection Association (NFPA): <https://content.nfpa.org/-/media/Project/Storefront/Catalog/Files/Research/Research-Foundation/Reports/RFLiteratureReviewUseCaseStudyUAS.pdf?rev=05d9be90e75c4d7197f3814a3ddb88a3>
- Lee, N.T. & Chin-Rothmann, C. (2022, April 12). *Police surveillance and facial recognition: Why data privacy is imperative for communities of color*. Retrieved from Brookings:
<https://www.brookings.edu/articles/police-surveillance-and-facial-recognition-why-data-privacy-is-an-imperative-for-communities-of-color/>
- Nguyen et al. (2020). *Survey of Drone Usage in Public Safety Agencies*. Retrieved from National Institute of Standards and Technology (NIST):
<https://nvlpubs.nist.gov/nistpubs/ir/2020/NIST.IR.8305.pdf>

U.S. Government Accountability Office (US GAO). (n.d.). *Drone Operations* / U.S. GAO. Retrieved from <https://www.gao.gov/drone-operations>