



Surveillance Impact Report

Port

Unmanned Aircraft Systems (Drones)

As required by San Francisco Administrative Code, Section 19B, departments must submit a Surveillance Impact Report for each surveillance technology to the Committee on Information Technology ("COIT") and the Board of Supervisors.

The Surveillance Impact Report details the benefits, costs, and potential impacts associated with the Department's use of Unmanned Aerial Vehicles or Drones.

DESCRIPTION OF THE TECHNOLOGY

The Department's mission is: to manage the waterfront as the gateway to a world-class city and advances environmentally and financially sustainable maritime, recreational, and economic opportunities to serve the City, Bay Area region, and California.

In line with its mission, the Department uses Unmanned Aerial Vehicles or Drones to accomplish the following:

1. Drones will provide the Port Department Operations Center (DOC) with high resolution images during response and recovery operations after a disaster.
2. Drones will provide high resolution images during engineering and environmental surveys and assessments of Port properties
3. Drones will support the development of marketing materials for the promotion of activities and opportunities at the Port.

Port shall use Unmanned Aerial Vehicles or Drones only for the following authorized purposes:

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| <ol style="list-style-type: none">1. Disaster response and recovery: Provide DOC with high resolution images during response and recovery operations after a disaster.2. Facility Inspections: Provide high resolution images during engineering and environmental surveys and assessments of Port properties.3. Marketing: Capture Drone footage to be used in marketing materials for the promotion of activities and opportunities at the Port. |
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Prohibited use cases involve any uses not stated in the Authorized Use Case section.

Port Drones are located in the following areas:

- Drones may be deployed at any Port property or facility along the seven and one-half miles of Port property between Aquatic Park in the North and Heron's Head Park in the South.

Surveillance Oversight Review Dates

COIT Review: July 17, 2020

Board of Supervisors Review: TBD

Technology Details

The following is a product description of Unmanned Aerial Vehicles or Drones:

Phantom 4 RTK is an aerial survey drone that combines centimeter-level navigation and positioning with a high-performance imaging system for use during surveying, mapping or inspection operations.

A. How It Works

To function, Unmanned Aerial Vehicles or Drones incorporate unmanned, remotely operated aircraft with onboard visual recording equipment, for the purpose of capturing images from an aerial perspective.

All data collected or processed by Unmanned Aerial Vehicles or Drones will be handled or stored by an outside provider or third-party vendor on an ongoing basis. Specifically, data will be handled by Baseline Environmental or another City Compliant Vendor to ensure the Department may continue to use the technology.

IMPACT ASSESSMENT

The impact assessment addresses the conditions for surveillance technology approval, as outlined by the Standards of Approval in San Francisco Administrative Code, Section 19B:

- The benefits of the surveillance technology outweigh the costs.
- The Department's Policy safeguards civil liberties and civil rights.
- The uses and deployments of the surveillance technology are not based upon discriminatory or viewpoint-based factors and do not have a disparate impact on any community or Protected Class.

The Department's use of the surveillance technology is intended to support and benefit the residents of San Francisco while minimizing and mitigating all costs and potential civil rights and liberties impacts of residents.

A. Benefits

The Department's use of Drone technology has the following benefits for the residents of the City and County of San Francisco:

| | | |
|---|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X | Education | Drone imagery will be used to provide materials to residents by promoting Port efforts to advance improvements in the environment, social equity, and quality of life for San Francisco residents and visitors. |
| | ▪ Community Development | |
| | ▪ Health | |
| X | Environment | Drone imagery will be used to conduct environmental surveys of Port property and open space. Drone imagery may be used during an Oil Spill response to monitor environmentally sensitive sites and to conduct shoreline assessments |
| | ▪ Criminal Justice | |

- Jobs
- Housing

X Other

Drone imagery will be used in the Port’s DOC to provide situational awareness and common operating pictures during an emergency response.

B. Civil Rights Impacts and Safeguards

The Department has considered the potential impacts and has identified the technical, administrative, and physical protections as mitigating measures:

The Port strives to mitigate all potential civil rights impacts through responsible technology and associated data use policies and procedures and intends to use drones and their associated data exclusively for authorized uses cases. All other uses, including surveillance of San Francisco residents or groups, are expressly prohibited.

Port Contractors will be prohibited from intentionally capturing data that can be used to identify individuals. Auto license plate information shall also not be deliberately captured. To mitigate the risk of potential embarrassment, emotional distress, self-censorship or diminished civic engagement by SF residents whose personal information may be unintentionally captured, the Port requires the “scrubbing” or otherwise obscuring/blurring (through use of image editing software) of all collected data to remove facial images or other personally identifiable information unintentionally captured by aerial drones.

All collected data, irrespective of the location of data capture or the identifying characteristics of captured persons, is subject to the same scrubbing processes and procedures. The image software scrubbing process obscures and blurs all data using either built-in AI recognition settings or through manual efforts by software operator.

To protect drone data from potential breach, misuse or abuse that may result in civil rights impacts, data is maintained on secure, department-owned servers. Only persons authorized to utilize the raw data may access the information and are required to maintain records of access using a drone data access log. Only data that has been edited to remove PII will be shared and stored on servers. To mitigate any potential impacts to residents' physical safety or economic loss through property damage, all Port Contractors operating drones must have valid Unmanned Aerial Vehicle pilot certifications.

C. Fiscal Analysis of Costs and Benefits

The Department’s use of Drones or Unmanned Aerial Vehicles yields the following business and operations benefits:

| Benefit | Description |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X Financial Savings | Drones can be far more time efficient and cost effective when conducting asset inspections, by mitigating the need for traffic control, expensive scaffolding/swing stage or other equipment, and can provide more detailed photographs/videos of the assets or areas in need of maintenance or repairs than can be done manually, minimizing labor costs. |
| X Time Savings | Deploying a drone can provide time savings over setting up and employing equipment such as scaffolds/swing stages/scissor-lift vehicles, etc. |
| X Staff Safety | Drones can be deployed to dangerous locations instead of personnel, such as rooftops, at the sides of building/bridges, along cliff areas or areas prone to erosion. |
| X Data Quality | Some locations which are difficult to access by personnel may be more easily photographed using drone technology, thereby achieving better data. |

| | | | |
|--------------------------------|--------------------|--------------|----------------------|
| Number of FTE (new & existing) | 0 | | |
| Classification | n/a | | |
| | Annual Cost | Years | One-Time Cost |
| Total Salary & Fringe | | | |
| Software | | | |
| Hardware/Equipment | | | |
| Professional Services | \$9,999 | 1 | |
| Training | | | |
| Other | | | |
| Total Cost | \$9,999 | | |

The Department funds its use and maintenance of the surveillance technology through

- Port operating budget.

COMPARISON TO OTHER JURISDICTIONS

Drones or Unmanned Aerial Vehicles are currently utilized by other governmental entities for similar purposes.