



Citywide Employee Drone Policy

Committee on Information Technology

The following Drone Policy is hereby adopted by the City and County of San Francisco's Committee on Information and Technology (COIT), and will apply to all City employees and City contractors.

PURPOSE AND SCOPE

The City and County of San Francisco ("City") is dedicated to embracing technologies that help improve its services while protecting the privacy and safety of its residents. The use of drones in the public interest is expected to benefit residents and visitors to the City through the more efficient use of City resources. The term "drone" means an unmanned aircraft flown by a pilot via a ground control system, or autonomously through use of an on-board computer, communication links or other any additional equipment.

This Drone Policy ("Policy") is intended to guide officers, employees, and contractors of participating departments with pre-approved drone programs. This Policy is subject to a one-year evaluation period. After the evaluation period, a Drone Oversight Committee composed of representatives from the Mayor's Office, the City Administrator, and COIT will review the drone programs of all participating departments and provide recommendations to COIT on revisions to this Policy, as necessary.

This Policy applies to all to departments participating in the City's drone program, including boards and commissions, employees, contractors, and volunteers. Elected officials, employees, consultants, volunteers, and vendors while working on behalf of the City are required to comply with this Policy.

POLICY STATEMENT

The City's Drone Policy requires each participating department to adopt a policy that reflects the requirements iterated in this document. Departments may add requirements to their drone policies, but may not remove any requirement in this document, or use drones for any reason outside the "use cases" identified for each department. All department policies must be approved by COIT staff before any authorized use.

The departmental drone policy must be reviewed and signed by all drone operators in participating departments, and any individuals with access to drone data that may contain Personal Identifiable Information. Engaging in the unauthorized use of drones or activities that are inconsistent with this Policy may subject an officer or employee to discipline, up to and including termination of employment or removal from office, as well as to applicable monetary fines and penalties. Nothing in this Policy shall modify or reduce any due process rights provided pursuant to the officer or employee's collective bargaining agreement.

COIT Policy Dates

Approved: May 5, 2017

Next Review Date: May 2017 - June 2018



Citywide Employee Drone Policy

Committee on Information Technology

AUTHORIZED USE CASES

The authorized use of drones is limited to the following Department use cases.

<i>Department</i>	<i>Authorized Use</i>
Controller's Office	<ul style="list-style-type: none">- <i>Disaster Response & Recover</i>: Aerial review of areas affected by disasters or emergencies.
Fire Department	<ul style="list-style-type: none">- <i>Disaster Response</i>: Assessment and District Surveys- <i>Emergency Response</i>: Building Fire Reconnaissance- <i>Search & Rescue</i>: Aerial or water borne drones.- <i>Training</i>: Assessment and evaluation of emergency response operations.
Public Utilities	<ul style="list-style-type: none">- <i>Construction Management</i>: Inspection of project sites for contract and environmental compliance.- <i>Environmental Monitoring & Documentation</i>: Vegetation type and health, wildlife, streams/reservoirs.- <i>Inspections</i>: Surveys and assessments of SFPUC properties and assets.
Port	<ul style="list-style-type: none">- <i>Disaster Response & Recovery</i>: Inspections during and after a disaster.- <i>Inspections</i>: Surveys and assessments of Port properties.- <i>Marketing</i>: Capture video and still photographs.
Recreation & Parks	<ul style="list-style-type: none">- <i>Construction Management</i>: Inspection of SFRPD project sites for contract and environmental compliance.- <i>Disaster Response & Recovery</i>: Inspection of properties, facilities, and assets during and after disasters.- <i>Emergency Response</i>: Park Rangers rapid response to emergencies on park land.- <i>Environmental Monitoring</i>: Flora and fauna type and health, spills and leaks, erosion.- <i>Inspections</i>: Surveys and assessments of SFRPD properties, facilities, and assets.- <i>Mapping</i>: Digital elevation models, land use maps, 3D models, contours.- <i>Marketing</i>: Capture videos and still photographs.- <i>Search & Rescue</i>: Reconnaissance and assist during an emergency, both for water and land operations.



Citywide Employee Drone Policy

Committee on Information Technology

POLICY REQUIREMENTS

The privacy and safety of San Francisco residents, businesses, and visitors are the top priorities of this Policy. Department policies must be consistent with this Policy and must comply with all City, State, and Federal laws and regulations, and with all state and federal Constitutional guarantees.

To review Federal Aviation Authority (FAA) requirements for the registration and use of drones by the City, please refer to: <https://www.faa.gov/uas/>

Specifications

Each City drone must have a global positioning system. The software and/or firmware used to operate the drone must be up to date and maintained.

Safety

Drones must be operated in a safe manner. City drones should not be operated in a way that causes personal injury or property damage. Drones may not have features (e.g., lights, coloring) or be used in a way that distracts drivers or other aircraft.

Drones that lose GPS signals should be set to hover in place. Additionally, drones that lose signals to their remote operator or when low power is detected should be set to return to home/origin.

Training

Drone operators must obtain remote pilot certifications from the FAA and must comply with all other FAA requirements.

Notification

Departments shall notify the public of intended drone operations at the site of operations through signage in readily viewable public areas. In addition, Departments shall notify the public of all drone flights by publishing flight summary data on the Open Data portal 24 hours in advance of operations. Department notifications shall include flight summary information and the type of data to be collected (See Appendix B for the City's Flight Summary Form).

NOTE: Pre-notification is not required when drones are used for emergency authorized uses. In those situations, flight summary information must be submitted within 48 hours after the operation.

Prohibited Zones

Drones may not be used within five miles of an airport or in any FAA no-fly zone unless approved by the appropriate authority. City drone operations must comply with FAA rules.



Citywide Employee Drone Policy

Committee on Information Technology

Drones may not hover over trolley, streetcar, or light rail line wires, above rail, bus and parking control facility yards, unless authorized by the SFMTA.

Drones are not authorized within 500 feet of historical landmarks without authorization from building management or owners. San Francisco historical landmarks are defined by Article 10 of San Francisco's Planning Code. (e.g. City Hall, the Ferry Building. A full list is available here:

http://sf-planning.org/sites/default/files/FileCenter/Documents/5081-PresBulletin09LANDMARKS_revMAR2015.pdf

Drones may not fly over Port properties subject to the Maritime Transportation Security Act of 2002 without the permission of the Port and/or terminal operator. Port officials will provide City agencies with a list of regulated maritime facilities.

Privacy

Departments must have an authorized purpose to collect information using a drone, or use drone-collected information. Should information be incidentally collected that could be used to identify persons or private information, Departments must remove all personal identifiable information from raw data footage.

Data Security

Departments are advised not to maintain archives of raw, unprocessed drone data once the business purpose is accomplished. Departments must restrict access to any raw drone footage it retains to authorized staff. Distribution of raw drone data is restricted to authorized departments for the purpose of cleansing and processing data only. In all other circumstances, the City may not exchange raw, unprocessed drone-collected data between departments or disclose such data to the public except for exigent public safety needs or as required by law.

Departments may store raw data up to a maximum of one year. Exceptions to this standard must be supported with documentation and a clear rationale, and maintained by department staff to be reviewed by COIT and the Drone Oversight Committee.

Compliance

All City drone operators must submit flight information to the Open Data portal here: <https://sfgov1.sharepoint.com/sites/ADM-Drone/SitePages/Home.aspx>

ROLES AND RESPONSIBILITIES

1. Departments participating in the drone evaluation years are required to adopt a policy that reflects the requirements iterated in this document. The departmental drone policy must be reviewed and signed by all drone operators in participating departments, and any individuals with access to drone data that may contain Personal Identifiable Information.



Citywide Employee Drone Policy

Committee on Information Technology

2. Drone Advisory Committee will review and evaluate Department authorized use cases and provide recommendations to COIT on the continued use of drones. The Drone Advisory Committee will be composed of representatives from the Mayor's Office, the City Administrator, and COIT.

DEFINITIONS

Personal Identifiable Information

Information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual.

Raw Drone Data

Information collected by a City drone that has not been processed and cleaned of all personal identifiable information. The distribution and use of raw drone data is tightly restricted.

QUESTIONS

All questions regarding this policy should be directed to the employee's supervisor or to the director. Similarly, questions about other applicable laws governing the use of drones or the issues related to privacy should be directed to the employee's supervisor or the director, although the supervisor or director may determine that the question must be addressed to the COIT Drone Oversight Committee. Employees may also contact their unions for advice or information about their rights and responsibilities under these and other laws.

REFERENCE

The FAA has developed regulations on the use of drones. For more information, please refer to their website at: <https://www.faa.gov/uas/>



Citywide Employee Drone Policy

Committee on Information Technology

Appendix A: DEPARTMENT DRONE PROGRAM AND AUTHORIZED USE

[Participating Departments are required to adopt a policy that reflects the requirements iterated in this document. The following serves as a template to establish a department's drone program and pre-approved use cases.]

A. Participating Department Name: *[Insert department name here]*

a. Specifications

- i. Each City drone must have a global positioning system. The software and/or firmware used to operate the drone must be up to date and maintained.

[Insert additional/specific departmental information here]

b. Safety

- i. Drones must be operated in a safe manner. City drones should not be operated in a way that causes personal injury or property damage. Drones may not have features (e.g., lights, coloring) or be used in a way that distracts drivers or other aircraft.
- ii. Drones that lose GPS signals should be set to hover in place. Additionally, drones that lose signals to their remote operator or when low power is detected should be set to return to home/origin.

[Insert additional/specific information related to departmental use cases here]

c. Training

- i. Drone operators must obtain remote pilot certifications from the Federal Aviation Administration (FAA) and must comply with all other FAA requirements.

[Insert additional/specific departmental information here]

d. Notification

- i. The department shall notify the public of intended drone operations at the site of operations through signage in readily viewable public areas. In addition, the department shall notify the public of all drone flights by publishing flight summary data on the open data portal 24 hours in advance of operations. The department's notifications shall include flight summary information and the type of data to be collected (See Appendix B for the City's Flight Summary Form).
- ii. NOTE: Pre-notification is not required when drones are used for emergency authorized uses. In those situations, flight summary information must be submitted within 48 hours after the operation.

[Insert additional/specific information related to departmental use cases here]

e. No Fly Zones



Citywide Employee Drone Policy

Committee on Information Technology

- i. Drones may not be used within five miles of an airport or in any FAA no-fly zone unless approved by the appropriate authority. City drone operations must comply with FAA rules.
- ii. Drones may not hover over trolley, streetcar, or light rail line wires, above rail, bus and parking control facility yards, unless authorized by the SFMTA.
- iii. Drones are not authorized within 500 feet of historical landmarks without authorization from building management or owners. San Francisco historical landmarks are defined by Article 10 of San Francisco's Planning Code. (e.g. City Hall, the Ferry Building. A full list is available here: http://sf-planning.org/sites/default/files/FileCenter/Documents/5081-PresBulletin09LANDMARKS_revMAR2015.pdf)
- iv. Drones may not fly over San Francisco Port properties subject to the Maritime Transportation Security Act of 2002 without the permission of the Port and/or terminal operator. Port officials will provide City agencies with a list of regulated maritime facilities.

[Insert additional/specific information related to departmental use cases here]

f. Privacy

- i. The department must have an authorized purpose to collect information using a drone, or use drone-collected information. Should information be incidentally collected that could be used to identify persons or private information, the department shall remove all personal identifiable information from raw data footage.

[Insert additional/specific information related to departmental use cases here]

g. Data Security

- i. COIT has advised the department to not retain archives of raw, unprocessed drone data once the business purpose is accomplished. The department must restrict access to any raw drone footage it retains to authorized staff. Distribution of raw drone data is restricted to authorized departments for the purpose of cleansing and processing data only. In all other circumstances, the City may not exchange raw, unprocessed drone-collected data between departments or disclose such data to the public except for exigent public safety needs or as required by law.
- ii. [Include this sentence if the department's data retention policy does not explicitly cover information collected by a drone]
- iii. The department may store raw data up to a maximum of one year. Exceptions to this standard must be supported with documentation and a clear rationale, and maintained by



Citywide Employee Drone Policy

Committee on Information Technology

department staff to be reviewed by COIT and the Drone Oversight Committee.

[Insert additional/specific information related to departmental use cases here]

h. Compliance

- i. All City drone operators must submit flight information to the open data portal here:

<https://sfgov1.sharepoint.com/sites/ADM-Drone/SitePages/Home.aspx>

[Insert additional/specific information related to departmental use cases here]



Citywide Employee Drone Policy

Committee on Information Technology

Appendix B: CCSF Drone Reporting Forms

All specific information regarding the City & County of San Francisco's authorized use of drones will be available on the Open Data Portal (<https://datasf.org/opendata/>). The following forms preview information collected on each Department's authorized uses and flight summary information.

CCSF Drone Policy - Department Authorized Uses	
Drone Descriptive Title (max 50 characters)	
Department:	<input type="text"/>
In the following section, please fill out this form and the following questions for EACH PROPOSED AUTHORIZED USE.	
-- AUTHORIZED USE CASE	
Please describe the specific operation how your department will use drones. <i>Please focus your answer on the operational details – who will use drones and for what purpose.</i>	
In what locations will you use drones? <i>Please provide specific details on anticipated locations. Within the City, please describe typical flight locations (e.g. neighborhoods, parks, etc.). Outside the City, please list the counties where flights will be conducted.</i>	
In a given month, how frequently do you anticipate using drones?	
Please describe how your department will use data to support a clear business objective.	
What are all the types of data drones will collect? <i>Please list all types of data any drone might collect, including data collected for a specific business purpose and any other data your drones will collect as part of normal operations.</i>	
In any scenario, will personal identifiable information be collected?	
What privacy risks do you anticipate by using drones?	



Citywide Employee Drone Policy

Committee on Information Technology

Please provide additional details on your data policies regarding information collected by drones:

Please identify your business practices for the type of data collected	Type of Data	Data Retention Policy Please cite the location for your policy and authorization source.	Please describe business process to protect privacy and filter out un-needed data.
Business Use Data This data is intentionally collected to support a specific operations			
All Other Data Please identify and describe your practices to for unintended data.			

At the end of the one-year evaluation period, COIT will conduct a Return-on-Investment analysis on the City’s use of drones.

How will your department evaluate impact drone data will have in improving your business? Please be specific.

What alternative options are available instead of using drones?

Save & Close

Submit



Citywide Employee Drone Policy

Committee on Information Technology

Flight Summary Form

Department *

Authorized Use new *

Drone Make & Model *

FAA provided drone registration number *

Street Address (Area Surveyed)

Please enter the address with the full number, name and type, for example: 1 South Van Ness Avenue

FAA provided commercial pilot certificate number *

City (Area Surveyed)

County (Area Surveyed) *

Zip Code (Area Surveyed)

Location

[Specify location](#) Or [Use my location](#)

Location data will be sent to Bing Maps. [Learn More](#)

Start Time *

End Time *

Type of Data Collected *

- ☐ Images
☐ Video
☐ Sound
☐ Infrared
☐ LIDAR
☐ Specify your own value:

Privacy Risks *

Please summarize privacy risks associated with this flight.

Privacy Risks - Mitigation *

What actions will be taken to mitigate privacy risks?