



Surveillance Impact Report

Automated License Plate Reader ("ALPR")
Police Department

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 ALPR.

DESCRIPTION OF THE TECHNOLOGY

The Department's mission is to protect life and property, prevent crime and reduce the fear of crime by providing service with understanding, response with compassion, performance with integrity and law enforcement with vision.

In line with its mission, the Department uses ALPR readers which allow for automatic and efficient identification of license plates that may be associated with criminal activity or missing persons. The quick identification of a license plate allows SFPD to respond to an associated crime, recover a victim's vehicle, investigate a crime and lawfully apprehend suspects.

SFPD shall use ALPR only for the following authorized purposes:

Authorized Use(s):

- | |
|---|
| Locate stolen, wanted, and or other vehicles that are the subject of investigation |
| To apprehend wanted persons with arrest warrants or who are otherwise lawfully sought by law enforcement. |
| To locate victims, witnesses, suspects, missing children, adults, and/or elderly individuals, including in response to Amber Alerts and Silver Alerts and others associated with a law enforcement investigation. |
| To assist with criminal investigations initiated by local, state, federal, and regional public safety departments by identifying vehicles associated with targets of criminal investigations. |
| Identify potential threats to critical infrastructure sites. |
| For other law enforcement purposes as authorized by law: Investigations of major crimes. |

The following use cases are expressly prohibited.

- ~~Any activity outside of the authorized use cases.~~ An ALPR alert will not, on its own, identify an individual, reveal racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, information concerning an individual person's sex life or sexual orientation
- ~~Any~~ ALPR hit on its own will not substantiate law enforcement response or contact. Contacting an individual solely based on an ALPR alert in the absence of confirming disposition

of the vehicle (stolen or recovered), verifying that the observed license plate number matches the ALPR data, and verifying the reason a vehicle or owner is wanted or of interest shall be prohibited.

- No SFPD member shall access ALPR data for curiosity, personal or political purposes.
- ALPR scanning is limited to vehicles exposed to public view.
- No content captured by ALPR cameras other than license plate and vehicle information, geo-location, and time date of capture, shall constitute cause for police enforcement.

Technology Details

The following is a product description of ALPR

Stationary/Fixed, Semi-Stationary, Mobile and smartphone mobile application ALPR Systems and Mobile ALPR Systems assist on-street patrol officers checking for criminal activity by capturing and analyzing license plates against known databases. This compact, rugged system has been IP67 certified and mounts securely below the lightbar for limited visual interference. Features and Benefits Offers high resolution coverage for a full lane of traffic with up to two concurrent vehicles in the field of view. Instantly checks captured plates against one or more databases of interest to immediately alert officers of hits. Increases spatial awareness for improved officer safety. Enhances proactive, preventative enforcement by enabling more intelligent investigations and data sharing across jurisdictions. Back Office System Software stores all collected data in a central location to support data analysis, data queries and reporting for law enforcement investigations (in accordance with each jurisdiction's data retention policy). System Components Mobile ALPR Camera(s) – Each System has 1 to 4 dual (IR and color) mobile cameras. Mobile ALPR Processor – Each processor simultaneously supports up to 4 mobile cameras. Brackets – A variety of camera mounting brackets for various vehicles and light-bar designs. In-car software – PAGIS software provides the graphical user interface (GUI) and in-car application. It compares ALPR images against federal, local or customized hotlists and sends alert when a match occurs.

A. How it Works

To function, ALPR Vehicle-mounted Automated License Plate Recognition (ALPR) technology shall be used to automate the processing of vehicle license plate information by translating the images license plate into alphanumeric characters with optical recognition software and storing those images, plate information and related metadata, including time and geo-location information. Vehicle-mounted Automated License Plate Recognition (ALPR) technology automates the processing of vehicle license plate and compliance information. Specifically, ALPR: uses specially-designed cameras mounted on Marked patrol vehicles and unmarked vehicles to capture digital images from surrounding vehicles as they drive through the streets; transforms the images into alphanumeric characters with optical character recognition (OCR) software to enable;

- Searches full plates, with color pictures of identified vehicles for plate read verification
- Partial plate searches that return possible matches to assist with identifying suspects' vehicles
- stores the images, plate information, and related metadata in a restricted-access database;
- compares the transformed license plate characters to databases of license plates of interest to operators;
- archives photo evidence and metadata in support of citations issued ("hits") according to evidence retention standards consistent with City and State law;

ALPR Mobile Applications are uploaded onto patrol officers' Department issued smartphones and eliminate dedicated ALPR vehicles, hardware, and infrastructure and has ability to integrate into the

ALPR reporting systems.

Fixed/Stationary ALPR Cameras are in a fixed location, such as permanently affixing the cameras to traffic lights, telephone poles, or at the entrances of facilities or freeway exit ramps. If cameras are pointed opposite each other, or can be repositioned remotely, law enforcement can know which direction a driver is traveling. Authorization shall be given for continuous deployment of a fixed ALPR (e.g., positioning the ALPR at a specific stationary location), in which case the authorization shall remain in force and effect unless and until rescinded or modified by the Chief of Police or his/her designee.

Semi-Stationary ALPR Cameras are located on a trailer and towed into place at strategic locations throughout the city. When parked, they function much like stationary cameras, capturing the license plates of moving vehicles that pass within view. Semi-Stationary ALPRs can be moved to different locations as operational needs change.

All data collected or processed by ALPR will be handled or stored by an outside provider or third-party vendor on an ongoing basis. Specifically, data will be handled by NCRIC's vendor to ensure the Department may continue to use the technology.

B. How SFPD Uses ALPR

1.) The Northern California Regional Intelligence Center (NCRIC) ALPR repository: NCRIC is a Federal, State, Local public safety government program that connects regional law enforcement partners. The Northern California region includes 15 counties. Each law enforcement partner's respective ALPR technology will collect ALPR data and house this data into one central repository. This data consists of license plate image, geo-location, time and date of capture and will create an alert for any license plate associated with a stolen, wanted or of interest vehicle. The central repository can be accessed by NCRIC approved agencies. NCRIC uses a vendor (currently listed as Back Office Server Software (BOSS)) which is available on SFPD Network so approved SFPD members may access the ALPR database for investigative purposes.

2.) Patrol officers driving marked vehicles or plain clothed officers driving unmarked vehicles outfitted with ALPR technology: The ALPR will scan license plates and may trigger an ALPR alert. The officers use the information from the alert and check it against California Law Enforcement Telecommunications System (CLETS). CLETS is the computer network that connects public safety agencies across the state to criminal histories, driver records, and other databases. "Hot sheets" or "hot lists" are housed in CLETS. The officer confirms through CLETS, the disposition of the license plate (stolen, recovered, attached to person of interest etc.). Once information is verified, the patrol officer may make contact with the vehicle, if occupied, or may begin an investigation, if unoccupied.

2-3.) SFPD does not have access to, own, lease or use Stationary ALPR cameras or Smartphone ALPR applications. The Department will comply with the ALPR Surveillance Technology Policy, authorized use cases, prohibitions and impact report should the Department acquire or procure either the Stationary or Mobile application ALPR systems.

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:

- A. The benefits of the surveillance technology outweigh the costs.
- B. The Department’s Policy safeguards civil liberties and civil rights.
- C. 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 ALPR has the following benefits for the residents of the City and County of San Francisco:

- Education
- Community Development
- Health
- Environment
- Criminal Justice
- Jobs
- Housing
- Other

On-street enforcement of: Stolen Vehicles; Amber Alerts; Silver Alerts; Unregistered Vehicles; Wanted Criminals; Parking Violations; Be on the Lookout (BOLO). Investigation tool for law enforcement inter-agency collaboration.

Additional benefits include:

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:

ALPR System Efficiencies are 98% with a correct Read Rate of 95% resulting in high validity of documentation of incidents. Highly effective read rates protect individuals and civil liberties by ensuring proper, correct capturing of information. SFPD recognizes that all people have a right to privacy and are committed to protecting and safeguarding this constitutional right, and that ALPR could raise concerns regarding real and/or perceived threats to civil liberties and privacy. Specifically, the Department and NCRIC recognize the following actual or potential public concerns:

Identity capture. The public may be concerned that ALPR will capture personally identifiable information (PII) without notice or consent. Although **ALPR does not** independently generate information that identifies vehicle occupants, license plate information can be used to determine the registered owner through a law enforcement investigation. In addition, contextual information like vehicle occupants, immediate surroundings, building addresses or pedestrians may be pictured. While

contextual images are captured they are not searchable/indexed/scanned in the ALPR database. As a result, it is possible that individuals with access to this data could do additional research to identify an individual who may have been captured in the contextual color image. SFPD policy (Dept. Bulletin 15-221) and NCRIC policy prohibit the use of ALPR data for anything other than legitimate law enforcement purposes. A license plate number identifies a specific vehicle, not a specific person. The potential to link to an identifiable person can only be realized through a separate step (inquiry to DMV etc.). Without this extra step, the license plate number and time/location data attached are not personally identifying. The investigative process identifies individuals while the ALPR system only automates the collection of the license plate numbers. Patrol vehicles outfitted with ALPR technology are constantly reassigned to District Stations based on operational need. ALPR outfitted vehicles are not concentrated in any one neighborhood in San Francisco.

ALPR data collected by SFPD and hosted by NCRIC is not used for the enforcement of Immigration Laws. SFPD complies with SF Admin Code Section 12H and 12I.

Misidentification. The public may be concerned that, if ALPR data is widely accessible and inaccurate, individuals may be misidentified as the person driving a vehicle that is violating parking rules, or is a criminal suspect. This could lead to improper government actions against such individuals. SFPD does not make ALPR data widely accessible and uses ALPR to detect a vehicle, not the driver. The investigative step is required to identify an individual. The ALPR system does not identify the individual. Activity monitoring or non-relevant data. The public may be concerned that ALPR data will enable individuals' behaviors to be revealed to and/or monitored by DOT or other government agencies, their partners or affiliates, companies interested in targeted marketing, and/or the public. Such concerns may include basic information about when individuals are in certain locations, as well as concerns about what government or individuals may infer from this data (i.e. marital fidelity, religious observance, or political activity). Although ALPR data is gathered from public places, this could conflict with an individual's expectation of locational privacy. SFPD policy (Dept. Bulletin 15-221 and DGO 10.08) and existing NCRIC user policy prohibit the use of ALPR data for anything other than legitimate law enforcement purposes. ALPR systems are restricted to law enforcement personnel with a lawful purpose for using the system and are not shared with private sector companies and is considered exempt from disclosure under Ca. Public Records Act.

C. Fiscal Analysis of Costs and Benefits

The Department's use of ALPR yields the following business and operations benefits:

| Benefit | Description | Quantity/Units |
|--|-------------|----------------|
| <input type="checkbox"/> Financial savings | | |
| <input checked="" type="checkbox"/> Time savings | | |
| <input checked="" type="checkbox"/> Staff safety | | |
| <input type="checkbox"/> Improved data quality | | |
| <input type="checkbox"/> Other | | |

The total fiscal cost, including initial purchase, personnel and other ongoing costs is

| | |
|----------------------|---|
| FTE (new & existing) | 2 |
|----------------------|---|

| | | | |
|-----------------------------|--------------------|--------------|----------------------|
| Classification | Q-60 and Q-2 | | |
| | Annual Cost | Years | One-Time Cost |
| Total Salary & Fringe | \$0 | 0 | \$0 |
| Software | \$0 | 0 | \$0 |
| Hardware/Equipment | \$0 | 0 | \$15,000 |
| Professional Services | \$0 | 0 | \$0 |
| Training | \$0 | 0 | \$0 |
| Other | \$0 | 0 | \$0 |
| Total Cost [Auto-calculate] | \$15,000 | | |

2.1 Please disclose any current or potential sources of funding (e.g. potential sources = prospective grant recipients, etc.). ^{SIR, ASR}

Aside from SFPD fleet operational budget, Vehicle Theft Abatement Funds (as defined by California Vehicle Code Section 9250.14) have been utilized to purchase and maintain these units in the past. There is no cost associated with NCRIC database access.

The Department funds its use and maintenance of the surveillance technology through
 Aside from SFPD fleet operational budget, Vehicle Theft Abatement Funds (as defined by California Vehicle Code Section 9250.14) have been utilized to purchase and maintain these units in the past.

COMPARISON TO OTHER JURISDICTIONS

Other governmental entities and NCRIC partner agencies utilize ALPR data for similar purposes. NCRIC's area of responsibility includes the following counties: Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, Marin, Contra Costa, San Francisco, San Mateo, Alameda, Santa Cruz, Santa Clara, San Benito and Monterey.

APPENDIX A: Surveillance Impact Report Requirements

The following section shows all Surveillance Impact Report requirements in order as defined by the San Francisco Administrative Code, Section 19B.

1. Information describing the Surveillance Technology and how it works, including product descriptions from manufacturers.

Vehicle-mounted Automated License Plate Recognition (ALPR) technology shall be used to automate the processing of vehicle license plate information by translating the images license plate into alphanumeric characters with optical recognition software and storing those images, plate information and related metadata, including time and geo-location information.

Vehicle-mounted Automated License Plate Recognition (ALPR) technology automates the processing of vehicle license plate and compliance information. Specifically, ALPR:

uses specially-designed cameras mounted on vehicles to capture digital images from surrounding vehicles as they drive through the streets;

transforms the images into alphanumeric characters with optical character recognition (OCR) software to enable;

- Searches full plates, with color pictures of identified vehicles for plate read verification
- Partial plate searches that return possible matches to assist with identifying suspects' vehicles
- stores the images, plate information, and related metadata in a restricted-access database;
- compares the license plate characters with state, local law enforcement and customized hotlists

Mobile ALPR Systems

Mobile ALPR Systems assist on-street patrol officers checking for criminal activity by capturing and analyzing license plates against known databases. This compact, rugged system has been IP67 certified and mounts securely below the light bar for limited visual interference.

Features and Benefits

Offers high resolution coverage for a full lane of traffic with up to two concurrent vehicles in the field of view.

Instantly checks captured plates against one or more databases of interest to immediately alert officers of hits.

Increases spatial awareness for improved officer safety.

Enhances proactive, preventative enforcement by enabling more intelligent investigations.

Back Office System Software (NCRIC vendor subject to change) stores all collected data in a central location to support data analysis, data queries and reporting for law enforcement investigations.

System Components

Mobile ALPR Camera(s) – Each System has 1 to 4 dual (IR and color) mobile cameras.

Mobile ALPR Processor – Each processor simultaneously supports up to 4 mobile cameras.

Brackets – A variety of camera mounting brackets for various vehicles and light-bar designs.

In-car software – PAGIS software provides the graphical user interface (GUI) and in-car application. It compares ALPR images against federal, local or customized hotlists and sends alert when a match occurs.

2. Information on the proposed purpose(s) for the Surveillance Technology.

ALPR readers allow for automatic and efficient identification of license plates that may be associated with criminal activity or missing persons. The identification of a license plate allows SFPD to act quickly and respond to an associated crime, recover a victim's vehicle, investigate a crime and lawfully apprehend suspects.

3. If applicable, the general location(s) it may be deployed and crime statistics for any location(s).

The ALPR vehicles have been deployed to all (10) District Stations and specialized units. The vehicle deployment is managed by SFPD Fleet and depends on operational need.

4. An assessment identifying any potential impact on civil liberties and civil rights and discussing any plans to safeguard the rights of the public.

ALPR System Efficiencies are 98% with a correct Read Rate of 95% resulting in high validity of documentation of incidents. Highly effective read rates protect individuals and civil liberties by ensuring proper, correct capturing of information.

SFPD recognizes that all people have an inalienable right to privacy and are committed to protecting and safeguarding this right, and that ALPR could raise concerns regarding real and/or perceived threats to civil liberties and privacy.

Specifically, the Department and NCRIC recognize the following actual or potential public concerns:

Identity capture. The public may be concerned that ALPR will capture personally identifiable information (PII) without notice or consent. Although ALPR does not independently generate information that identifies vehicle occupants, license plate information can be used to determine the registered owner. In addition, vehicle occupants or immediate surroundings (including addresses) may be pictured. As a result, it is possible that individuals with access to this data could do additional research to identify the individual. SFPD policy (Dept. Bulletin 15-221) and NCRIC policy prohibit the use of ALPR data for anything other than legitimate law enforcement purposes. A license plate number identifies a specific vehicle, not a specific person. The potential to link to an identifiable person can only be realized through a separate step (inquiry to DMV etc.). Without this extra step, the license plate number and time/location data attached are not personally identifying. The investigative process identifies individuals while the ALPR system only automates the collection of the license plate numbers.

Misidentification. The public may be concerned that, if ALPR data is widely accessible and inaccurate, individuals may be misidentified as the person driving a vehicle that is violating parking rules, or is a criminal suspect. This could lead to improper government actions against such individuals. SFPD does not make ALPR data widely accessible and uses ALPR to detect a vehicle, not the driver. The investigative step is required to identify an individual. The ALPR system does not identify the individual.

Activity monitoring or non-relevant data. The public may be concerned that ALPR data will enable individuals' behaviors to be revealed to and/or monitored by DOT or other government agencies, their partners or affiliates, companies interested in targeted marketing, and/or the public. Such concerns may include basic information about when individuals are in certain locations, as well as concerns about what government or individuals may infer from this data (i.e. marital fidelity, religious observance, or political activity). Although ALPR data is gathered from public places, this could conflict with an individual's expectation of locational privacy. SFPD policy (Dept. Bulletin 15-221 and DGO 10.08) and existing NCRIC user policy prohibit the use of ALPR data for anything other than legitimate law enforcement purposes. ALPR systems are restricted to law enforcement personnel with a lawful purpose for using the system and are not shared with private sector companies and is considered exempt from disclosure under Ca. Public Records Act.

5. The fiscal costs for the Surveillance Technology, including initial purchase, personnel and other ongoing costs, and any current or potential sources of funding.

| | |
|--------------------------------|---|
| Number of FTE (new & existing) | <input type="text" value="2"/> |
| Classification | <input type="text" value="Q-60 and Q-2"/> |
| Total Salary & Fringe | <input type="text" value="\$0"/> |
| Software | <input type="text" value="\$0"/> |
| Hardware/Equipment | <input type="text" value="\$15,000"/> |
| Professional Services | <input type="text" value="\$0"/> |
| Training | <input type="text" value="\$0"/> |
| Other | <input type="text" value="\$0"/> |
| Total Cost [Auto-calculate] | <input type="text" value="\$15,000"/> |

Aside from SFPD fleet operational budget, Vehicle Theft Abatement Funds (as defined by California Vehicle Code Section 9250.14) have been utilized to purchase and maintain these units in the past. [There is no cost associated with NCRIC database access.](#)

6. Whether use or maintenance of the technology will require data gathered by the technology to be handled or stored by a third-party vendor on an ongoing basis.

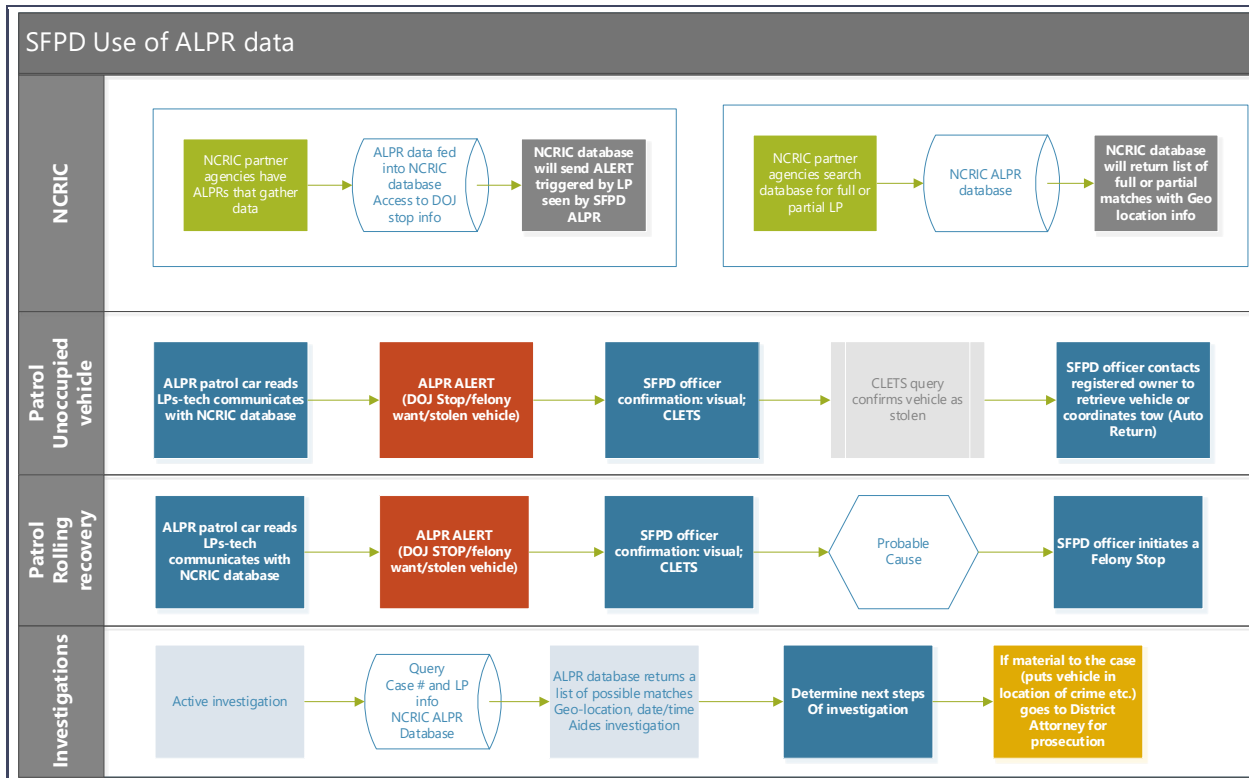
Handled by third-party vendor, ongoing:

Vendor name:

Special data handling required:

7. A summary of the experience, if any, other governmental entities have had with the proposed technology, including information about its effectiveness and any known adverse information about the technology such as anticipated costs, failures, or civil rights and civil liberties abuses.

APPENDIX B: [Mapped Crime Statistics](#) [SFPD Use of ALPR data](#)



The general location(s) it may be deployed and crime statistics for any location(s):

The ALPR vehicles have been deployed to all (10) District Stations and specialized units. The vehicle deployment is managed by SFPD Fleet and depends on operational need.

Appendix C: “Hot List” or “Hot Sheets” definition relating to ALPR data accessed by SFMTA
 Stolen vehicles and stolen plates in the City and County of San Francisco as reported through Police Incident Reports and available through CABLE/CLETS

Appendix D: “Hot Lists” Categories that can trigger ALPR alerts, if ALPR technology is so configured

For SFPD ALPR usage, “Hot List” refers to license plates that are associated with “DOJ Stop/Felony Want”. “DOJ Stop/Felony Want” are listed as follows:

- Stolen Vehicles
- Stolen Plates
- Felony Wants (Homicide, Domestic Violence, Kidnapping, Aggravated Assault, shootings etc.)
- Missing Person
- Protection Order
- Sex Offenders
- Canadian Stolen Plate
- Violent Gang Terrorist Organization File (VGTOF)
- Violent Offender

- Wanted Persons

Appendix E: Annual Reporting

Per SF Admin Code Section 96A.3, SFPD is required to quarterly report on specific data relating to Stops, Searches, Arrests and Use of Force. The Stop Data is collected via the California Department of Justice Stop Data Collection System (DCS). For purposes of reporting stop, search and associated demographic data, the report draws upon definitions provided by the state as part of AB953's regulatory implementation. The quarterly report requirements are established through state and local law codes and do not consider ALPR Alert tracking.

SFPD shall create administrative mechanisms and a reporting structure, if the technology capabilities allow, to track ALPR alerts and subsequent law enforcement action. The first annual report will be issued on January 30, 2022 and will be issued on the 30th day of January every year, thereafter. The report will be posted on the SFPD public website, through San Francisco Open Data- DataSF and if requested, will be reported to the Police Commission on an annual basis.

The annual report may include the following data sets:

- Total Number of ALPR devices used
- Total number of traffic stops due to ALPR alerts and corresponding category of DOJ Stop/Felony want
- District Station Jurisdiction of traffic stops due to ALPR alerts
- Total number of manually entered ALPR canvas searches
- District Station Jurisdiction of manually entered ALPR canvas searches
- Number of stolen vehicles recovered due to ALPR alerts
- Number of Missing Persons (Silver/Amber Alerts) associated with a vehicle's license plate number
- Number of Missing Persons (Silver/Amber Alerts) associated with a vehicle's license plate number, located using ALPR
- Total Number of investigations aided by ALPR

Appendix F: SFPD Sector Patrol Map

The City of San Francisco is covered by ten (10) Police Districts: Central, Southern, Bayview, Mission, Northern, Park, Richmond, Ingleside, Taraval and Tenderloin. Each Police District includes sectors for police patrol. Each sector is patrolled during the day shift, swing shift and midnight shift, each shift overlapping the other. The patrol vehicles equipped with ALPR may be distributed across any of the sectors at any given time.

Sectors for Police Patrol by Station:

Central Station: A1- A5

Southern Station: B1-B5

Bayview Station: C1-C3

Mission Station: D1-D6

Northern Station: E1-E6

Park Station: F1-F4

Richmond Station: G1- G5

Ingleside Station: H1-H6

Taraval Station: I1-I6

Tenderloin Station: J1-J5

