



MEMORANDUM

TO: LeRonne L. Armstrong
Chief of Police

FROM: Drennon Lindsey, Deputy Chief of Police
OPD, Bureau of Investigations

SUBJECT: Automated License Plate
Reader – 2020 Annual
Report

DATE: March 24, 2021

Background

Oakland Municipal Code (OMC) 9.64.040: Surveillance Technology “Oversight following City Council approval” requires that for each approved surveillance technology item, city staff must present a written annual surveillance report for Privacy Advisory Commission (PAC). After review by the Privacy Advisory Commission, city staff shall submit the annual surveillance report to the City Council. The PAC shall recommend to the City Council that:

- The benefits to the community of the surveillance technology outweigh the costs and that civil liberties and civil rights are safeguarded.
- That use of the surveillance technology cease; or
- Propose modifications to the corresponding surveillance use policy that will resolve the concerns.

OPD’s ALPR Surveillance Use Policy (SUP) is still undergoing review by the PAC. However, OPD has existing ALPR Policy 430. Policy 430 states that the “ALPR Coordinator shall provide the Chief of Police and Public Safety Committee with an annual report that contains following for the previous 12-month period.”

2019 Annual Report Details

- A. A description of how the surveillance technology was used, including the type and quantity of data gathered or analyzed by the technology:

The number of times ALPR technology was used in 2020 The table below shows the total scans by month – the total license plate photographs made and stored each month 2,591,990 total for the year). The table also shows the number of times the vehicle-based systems had a match (“hit”) with a California Department of Justice (CA DOJ) database (4,150 total for 2020). OPD’s very outdated ALPR system can only quantify these two figures; the system can no longer quantify individual queries or perform any audit functions, as the software is no longer supported from the original vendor. OPD can only provide more comprehensive use data if and when a newer ALPR system is acquired.

Table 1: 2020 OPD ALPR Scans and Hits

Month	Year	Scans	Hits
Jan	2020	391,547	552
Feb	2020	276,834	396
Mar	2020	316,767	379
Apr	2020	336,103	662
May	2020	316,319	571
Jun	2020	149,050	255
Jul	2020	116,318	169
Aug	2020	118,521	213
Sep	2020	93,011	117
Oct	2020	102,491	171
Nov	2020	207,760	372
Dec	2020	167,269	293
2020 Totals		2,591,990	4,150

- B. Whether and how often data acquired through the use of the surveillance technology was shared with outside entities, the name of any recipient entity, the type(s) of data disclosed, under what legal standard(s) the information was disclosed, and the justification for the disclosure(s):

The Federal Bureau of Investigation (FBI) had access to OPD ALPR data only for collaboration on the Council-approved Safe Streets Task Force. The following police agencies made specific requests to OPD for ALPR data related to specific criminal cases (the number to right of agency = amount of data requests):

- *Berkeley Police Department – 2*
- *Daly City Police Department – 1*
- *Fremont Police Department - 5*
- *Livermore Police Department - 2*
- *San Francisco Police Department - 1*
- *San Jose Police Department – 1*

- C. Where applicable, a breakdown of what physical objects the surveillance technology hardware was installed upon; using general descriptive terms so as not to reveal the specific location of such hardware; for surveillance technology software, a breakdown of what data sources the surveillance technology was applied to:

The ALPR cameras are installed upon fully marked OPD patrol vehicles (29 operational; 6 inoperable).

- D. Where applicable, a breakdown of where the surveillance technology was deployed geographically, by each police area in the relevant year:

These vehicles are assigned to the Bureau of Field Operations I (administered out of the Police Administration Building in downtown Oakland) as well as Bureau of Field Operations II (administered from the Eastmont Substation). The vehicles are deployed throughout the City; they are used to respond to criminal activity with a particular focus on violent crime.

- E. A summary of community complaints or concerns about the surveillance technology, and an analysis of the technology's adopted use policy and whether it is adequate in protecting civil rights and civil liberties:

Members of the public have spoken at PAC meetings regarding concerns of negative impacts to privacy protections. OPD is not aware of other community complaints.

- F. The results of any internal audits, any information about violations or potential violations of the Surveillance Use Policy, and any actions taken in response unless the release of such information is prohibited by law, including but not limited to confidential personnel file information:

No audits were initially performed in 2019 or to review 2019 data; OPD's very outdated ALPR system can only quantify these two figures; the system can no longer quantify individual queries or perform any audit functions, as the software is no longer supported from the original vendor. OPD can only provide more comprehensive use data if and when a newer ALPR system is acquired. However, with support from the software vendor as well as the Information Technology Department, 2019 data has since been audited for accuracy see Appendix A to this report.

- G. Information about any data breaches or other unauthorized access to the data collected by the surveillance technology, including information about the scope of the breach and the actions taken in response:

There were no ALPR data breaches.

- H. Information, including crime statistics, that helps the community assess whether the surveillance technology has been effective at achieving its identified purposes:

*The ALPR system does not allow for automated connections to the many cases where ALPR is instrumental in either immediate notifications to stolen vehicles and/or vehicles connected to other crimes. The system also does not offer any automation to cases where crimes are investigated, and ALPR provides useful data. Therefore, OPD has conducted time-consuming research as part of updating the Surveillance Impact Report for review of a new Surveillance Use Policy. The Surveillance Impact Report being sent to the February and March 2021 PAC meetings (as the PAC reviews a draft ALPR Surveillance Use Policy), highlights many uses (see **Attachments A and B**). (A) above shows that there were 4,150 hits against CA DOJ cases. OPD estimates that ALPR was hundreds of times in OPD investigations in 2020. In 2020, there were 180 OPD incident reports that had either the keyword LPR or ALPR or both in the narrative (including supplements). Auto thefts represent most of these cases; however, these reports also relate to cases of violent crime (e.g., homicide, rape, strong arm assault, firearm robbery and carjacking).*

- I. Statistics and information about public records act requests regarding the relevant subject surveillance technology, including response rates:

OPD has received zero PRRs in 2020 related to ALPR; there are 11 total open ALPR-related PRRs as of December 31, 2020.

- J. Total annual costs for the surveillance technology, including personnel and other ongoing costs, and what source of funding will fund the technology in the coming year:

Zero; OPD did not incur any maintenance, licensing, or training costs.

- K. Any requested modifications to the Surveillance Use Policy and a detailed basis for the request:

OPD and the PAC are developing and reviewing a new ALPR Surveillance Policy contemporaneous to the production of this report for OPD ALPR Use Policy 430.

OPD is committed to providing the best services to our community while being transparent and instilling procedural justice through daily police activity. This report is compliance with these OPD commitments as well as the reporting requirements of OMC 9.64. OPD hopes that this report helps to strengthen our trust within the Oakland community.

Respectfully submitted,

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OPD, Bureau of Investigations

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Appendix A

2020 ALPR Accuracy Audit

Policy 430 states in section 430.7(c) System Monitoring and Security: ALPR system audits shall be conducted on a regular basis by the Bureau of Services. The purpose of these audits is to ensure the accuracy of ALPR Information and correct data errors.

Determining accuracy of captured ALPR data is difficult based on the fact that license plates can be in length from 1 character to 7 characters. These characters can be in many different formats due to the age and type of the vehicle as well as personalized plates. The one thing that remains constant with California plates is the character limit is set at 7. Per the policy this audit is meant to correct data errors. This audit cannot correct the errors. What this audit can do though is show how the system is working on a year to year basis to make sure the ALPR system optical recognition algorithm is operating as it should and the error rate stays very low.

Method of Audit:

- Compiled all captures for the year.
- Sorted all captures to identify all that were over 7 characters.
- Divided the number of bad captures by the total captures to obtain the percentage of time the system was not correct.

2020 Audit

A query of all plates for 2020 revealed 2,592,055 captures. A sort of captures containing over 7 characters was completed. The amount of captures over 7 characters resulted in 2,843 captures. The percentage of bad captures with over 7 characters equals 0.111% of the total captures. After looking at the bad captures it appears that the system sometimes captures road signs and other objects containing text. Due to the very low percentage of incorrect captures it appears the system is working correctly but the optical recognition system has some small issues with identifying license plates. It should be noted that the photo obtained at the time of the system capture will show the user what the optical character recognition thought was a license plate.

2020 ALPR Justifications Audit

Lexipol Policy 430 Automated License Plate Readers (ALPRs) was created prior to the implementation of justification and auditing features being activated on our ALPR system. In the policy there is mention of a right to know and a need to know prior to accessing ALPR data but there is no mention to what must be entered into the software justification fields. The Current ALPR system has the following fields in the justifications tab: (Audit, BOLO Post Scan Query, Crime Scene Query, Criminal Investigation, Test, Trend Analysis). One of the above Justifications must be selected prior to continuing with the Query. There are two additional free form boxes (Justification Note and File Number). The Justification Note box must have something entered in order to continue with the query. The File Number can be bypassed without entering anything.

SB34 (Automated license plate recognition systems: use of data) was passed by the California Legislature. In this law there are several requirements that a government entity must abide by.

In Section 1798.90.52 the law states, "If and ALPR operator accesses or provides access to ALPR information, the ALPR operator shall do both of the following:

- a. Maintain a record of that access. At a minimum, the record shall include the following:
 1. The date and time the information is accessed.
 2. The license plate number or other data elements used to query the ALPR system.
 3. The username of the person who accesses the information, and, as applicable, the organization or entity with whom the person is affiliated.
 4. The purpose for accessing the information.
- b. Require that ALPR information only be used for the authorized purposes described in the usage and privacy policy required by subdivision (b) of Section 1798.90.51.

In February of 2021 raw ALPR Justification data was retrieved by City IT and the Neology vendor for years 2019 and 2020. This raw data was extracted directly from the database and was not retrieved as it normally would have been from the software included with the BOSS3 system.

Method of Audit:

Ensure the following state requirements were included in the ALPR queries to include:

1. Data and time of Query
2. License plate of other data used to query
3. Username of person accessing
4. Purpose of the access

The 2020 ALPR justification data consisted of 3996 queries. All the queries included an identifiable Username as well as a date and time of the query. There were 166 queries that had no license plate or other querying characters present. There was only 1 query that had no purpose of access identified. A character must be entered into the plate tab to conduct a query as well as a justification reason (purpose of the access). Due to these sections being completely blank it is unknown if the system allowed this to occur, which is highly unlikely, or if it was due to the way the raw data was extracted from the server. The current system is unable to run automated justification audits at this time. The department was only able to run these audits after obtaining the raw data and going through the data manually.