Annual Usage Report for Automated License Plate Readers
City of San José
August – December 2022

Owning department(s): San José Police Department (SJPD)
Department owner: Deputy Chief, Executive Officer

Context for Annual Usage Reports

The City annually reports on the usage and accuracy of its priority technologies that collect personal information. This document is prepared in coordination with the owning department and the Digital Privacy Officer, and satisfies the required reporting detailed in the relevant Data Usage Protocol.[1]

1) Program Summary

Automated License Plate Readers (ALPRs) use high speed cameras to photograph vehicle license plates, which are used to identify if the vehicle is stolen or part of an ongoing investigation. The purpose of ALPR cameras is to improve criminal investigations and deter crime in the surrounding area. Full detail on the data usage of the ALPR program can be found online.[2]

To date, SJPD has provided 31 narratives of notable cases in which ALPR supported solving a criminal investigation. These investigations were felony cases and ranged from robberies, stolen vehicles, hit-and-runs, homicides, and shootings.

Date	Notable ALPR-assisted solved cases with narrative reports[3]	Total events supported with an ALPR access[4]
August – December 2022	6	1,092
January – February 2023	25	-not yet reported-
Total	**31**	**1,092 (from August – December)**

Figure 1: Number of notable SJPD-involved investigations that were solved with the assistance of ALPR.

The combination of ALPR and air patrol has reduced the need for high-speed vehicle chases.
13 cases involved ALPR being used alongside SJPD's air patrol to monitor a vehicle associated with a felony. This allowed SJPD to identify or follow a vehicle before engaging on the ground. Vehicle chases (i.e., police car chasing another vehicle) can be dangerous for everyone on the road.

SJPD provided a comprehensive summary of their ALPR program. See attachment 1.

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[1] See all published Data Usage Protocols at: https://www.sanjoseca.gov/digitalprivacy
[2] Full data usage protocol here: https://www.sanjoseca.gov/your-government/departments-offices/information-technology/digital-privacy/data-usage-policies-public-comment#widget_17773_23713_13220
[3] This list is not comprehensive of all cases, solved and unsolved, that were supported by ALPR
[4] This is the number of unique recorded "events" (typically a case code or police incident number) that had a reported ALPR access associated with them. This includes events such as regular maintenance, testing, and set-up. To recalculate this number, select all accesses from August 1, 2022 to December 31, 2022 and count the number of unique text entries in the "reason" column.

2) Updates to Data Usage Protocol and Plans for Future Years

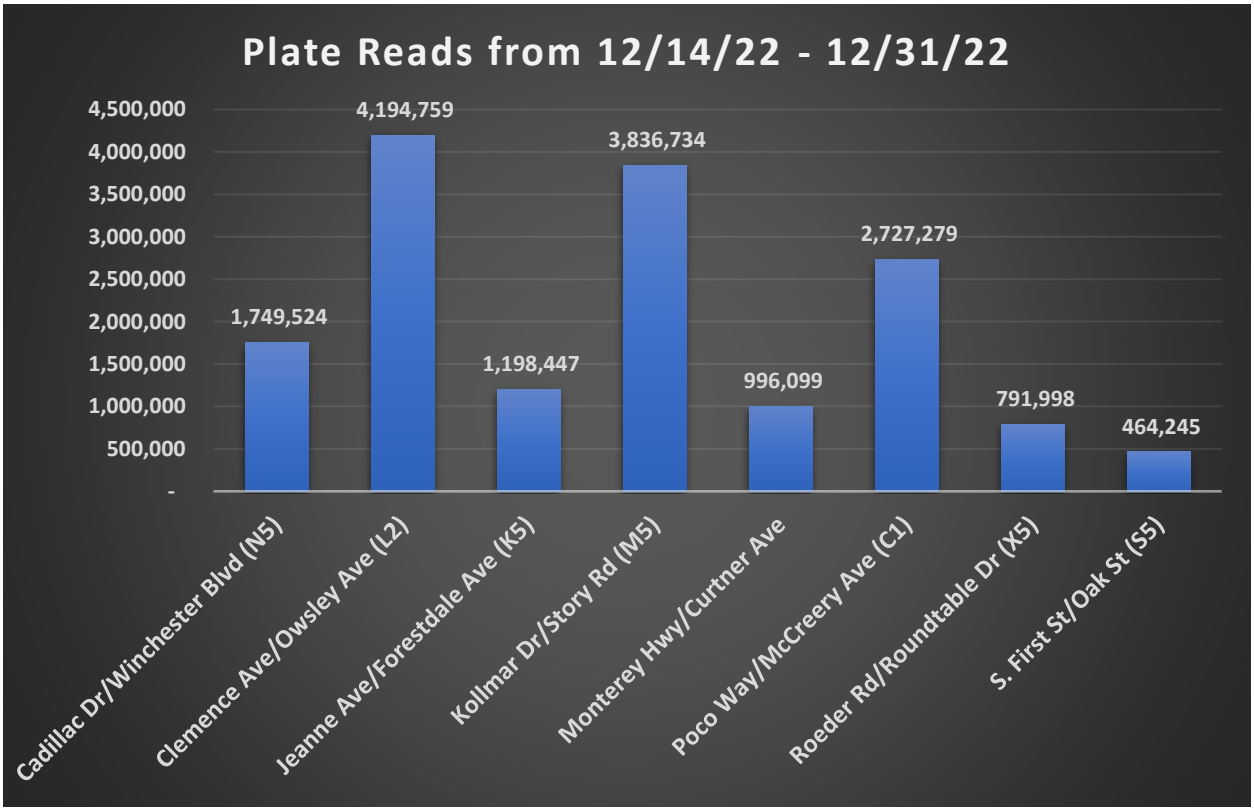
No updates to the Data Usage Protocol were made during the reporting period. SJPD installed 72 additional stationary ALPR cameras in December of 2022 for a one-year program. Continued use of the cameras in the one-year program is dependent on pending funding.

3) Reporting Metrics on Usage and Accuracy

Notice: Due to a miscommunication in retention requirements, only data from the second half of December 2022 is available for reads and hits. Going forward, the Department will manually export and store data every 30 days to comply with the annual reporting requirements. While hits and reads data is limited, all access data has been collected for the reporting period.

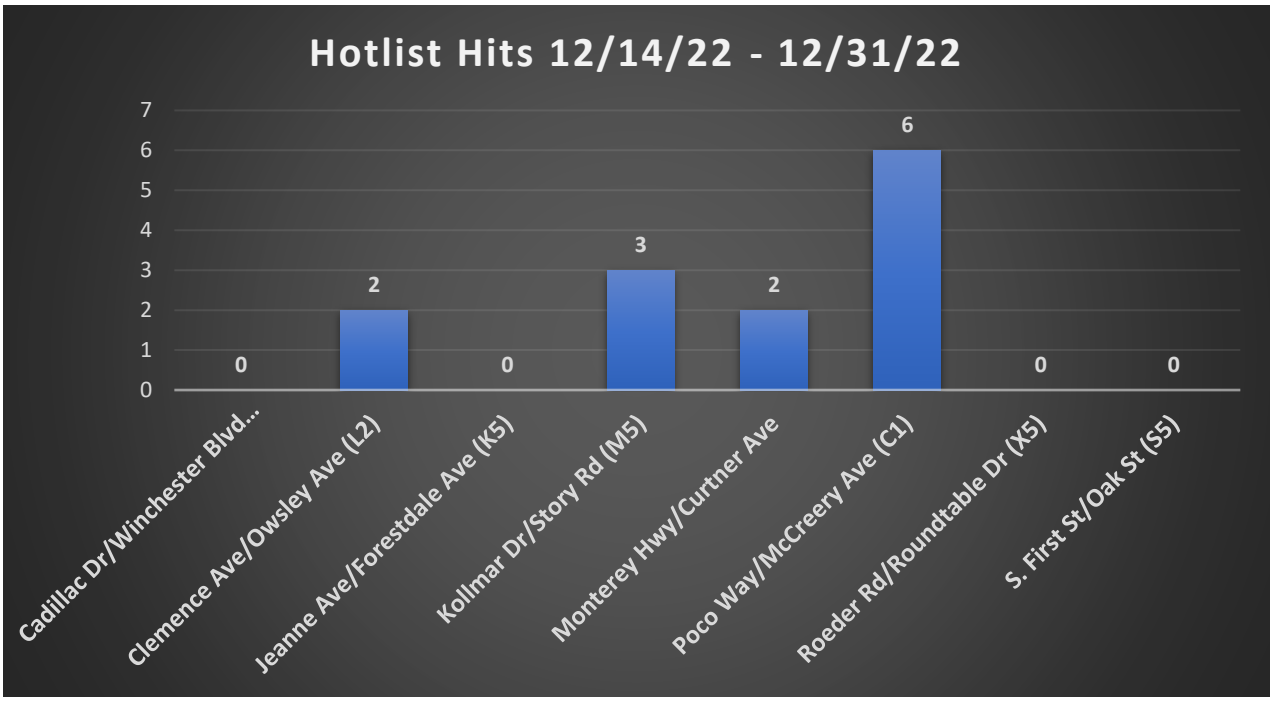
a. Reads by location

This metric shows the number of plates read (i.e., number of photographs taken) by location by the ALPR system. Overall, 15,959,085 reads occurred between 12/14/22 and 12/31/22.



b. Hits by location

This metric shows the number of "hits" by location. A "hit" is when SJPD is alerted that a vehicle involved in an active investigation (i.e., on a "hotlist") had been identified by an ALPR camera. Overall, 13 hits occurred from December 14, 2022 to December 31, 2022.



c. Records Accessed by SJPD

SJPD accessed 2,721 records (e.g., photos) from December 14, 2022 to December 31, 2022. From August through December of 2022, SJPD accessed 15,085 records. This includes records from partner agencies, which are other law enforcement agencies in California.[5]

d. Accuracy of system

A study conducted by the Digital Privacy Officer identified an accuracy rate of at least 89% under any weather conditions. The table below details accuracy of the system as of the study date on March 1, 2023. These accuracy levels are comparable to other research.[6] A ~90% accuracy rate is a reasonable level when combined with human verification, which is required for ALPR usage.

Circumstances	Correct Reads	Incorrect Reads	% correctly read
At night while raining	91	11	89%
During the day while raining	90	11	89%
During the day with clear skies	43	3	93%

Figure 2: Accuracy of ALPR reads in the field, measured on March 1, 2023.

[5] A full list of partner agencies can be found on San José Police Department's ALPR portal: https://transparency.flocksafety.com/san-jose-ca-pd

[6] While the space is limited in research, European agencies and companies have conducted some ALPR accuracy tests: https://sensorable.io/articles/anpr-accuracy-test/index.html, https://www.nedapidentification.com/insights/the-wide-range-of-anpr-solutions-calls-for-guidance-in-making-the-right-choice/, and https://www.researchgate.net/publication/261503938_Accuracy_of_automatic_number_plate_recognition_ANPR_and_real_world_UK_number_plate_problems

e. Compliance reporting

After reviewing all access logs, system accuracy, and summary of the program, the Digital Privacy Officer finds SJPD in compliance with its Data Usage Protocol. The DPO was particularly concerned about which entities have accessed San José's cameras to ensure that only approved CA agencies accessed the data. In reviewing the audit logs of SJPD, the Digital Privacy Officer confirmed that all active users that accessed SJPD ALPR data were California law enforcement agencies.[7]

Access logs also include a justification for each access. While most access logs included a case number, some instead provided a descriptive justification for access, such as "Stolen Vehicle". We recommend further education for officers to ensure they enter the relevant incident number when accessing the database.

f. Conclusion

The ALPR system has demonstrated a value for SJPD in dozens of cases. The access controls and audit logs provide the City with comprehensive controls over who, how, and when people can access the data.

Moving forward, SJPD will ensure hit and read data is collected for the entire year. SJPD should continue education for officers on accurate data reporting when accessing the ALPR system. Additionally, the Digital Privacy Officer recommends future research into the potential preventative effects of the ALPR system. In other words, have areas with ALPR systems shown a decrease in reported incidents relative to similar areas with no ALPR system?

In short, SJPD has exercised responsible and transparent usage of a technology that has a demonstrated value in solving crime.

[7] Active users are those with an active account to access the ALPR system hosted by the vendor. 98% of accesses were done by active users. 2% of accesses were done by users whose accounts have been deactivated since the date they accessed SJPD data. The audit log initially did not report agency name for deactivated accounts. The vendor has begun manually identifying the deactivated users. They have identified 15 of the 29 deactivated users as of publishing, and will continue to identify the rest. So far all identified deactivated users have been identified as part of approved agencies.

Attachment 1: San José Police Department Summary of ALPR Program

Automated License Plate Reader (ALPR) technology, also known as License Plate Recognition (LPR), allows for the automated detection of license plates along with the vehicle make, model, color, and unique identifiers through the San Jose Police Department's (Department's) APLR system and the vendor's vehicle identification technology. The technology is used by the Department to convert data associated with vehicle license plates and vehicle descriptions for official law enforcement purposes, including, in part, identifying stolen or wanted vehicles, wanted persons, missing persons or persons involved in crime.

The Curtner Avenue/Monterey Road Pedestrian Safety Automated License Plate Reader Pilot was brought to the San Jose City Council by Councilmember Esparza in September of 2021. The pilot was introduced by CM Esparza in response to multiple vehicular fatalities and hit-and-run collisions at the named intersection. ALPR cameras were purchased via non-competitive bid (under $10K) from Flock Safety. Flock Safety was chosen based upon multiple factors, including but not limited to, strong testimonials from neighboring police agencies, lease model, reputation, and the ability to share hotlist alerts with most police departments in the area who are currently utilizing the Flock ALPR system. In May of 2022, four (4) Flock ALPR cameras were installed at the intersection of Curtner Avenue and Monterey Road. The Department commenced department-wide training in June of 2022 and the Flock system is currently operational. Properly trained sworn and professional staff can access the Flock System via their mobile devices, desktop computers, laptops, or from the Mobile Data Computers in patrol cars.

In 2020, the San Jose Police Department requested and received anti-terrorism funding from the Urban Areas Security Initiative (US Department of Homeland Security Office for Domestic Preparedness, UASI) in the amount of $230,000 for a gunshot detection (GSD)/ALPR System. In April of 2022, brand name/sole source documents were approved by San Jose City purchasing and the San Jose city Digital Privacy Officer for Flock Safety (Raven GSD/Falcon ALPR.) Funding allows for coverage of seven (7) neighborhoods with gunshot detection devices and corresponding ALPR cameras. In June of 2022, the Department project team met to discuss potential neighborhood placement. As part of that process, the project team reviewed a five (5) year gun violence data report and met with Divisional Captains and select police lieutenants for anecdotal input. In December 2022, The Department launched the GSD/ALPR pilot in seven violent crime-impacted neighborhoods and Flock installed 72 Falcon ALPR cameras and 110 Raven gunshot detection devices.

The Department recognizes the importance of employing technology in law enforcement. By utilizing rapidly deployable, innovative GSDs that integrate ALPR, patrol officers benefit from the early detection of gun violence. Police officers cannot be in all places at all times, however, by utilizing ALPR and advanced acoustic hardware sensors they can dramatically increase their ability to detain and arrest violent offenders.

As anticipated, the Flock ALPR System has proven to be immediately invaluable. Flock has become an indispensable and widely used tool by Special Operations, the Bureau of Investigations, the Bureau of Field Operations, and the Air Support Unit. By employing ALPR technology, Department detectives and officers have solved multiple violent crimes, including robbery, assault with a firearm, home invasion, sexual assault, and attempted murder of a police officer. Specific to the Monterey and Curtner Pilot, investigators have received alerts and evidence related to the possession of stolen vehicles, possession of stolen property, and strong-arm robbery. The Monterey and Curtner cameras are directly responsible for the safe recovery of multiple stolen vehicles and the subsequent arrest of the offenders. Additionally, the Monterey and Curtner pilot was the catalyst for the sharing of cameras with/from neighboring jurisdictions, the ability to receive real-time alert relative to cars associated to violent crimes, and part of a larger network

that allows our officers to be more efficient and innovative. Since the installation of the system at Monterey and Curtner, there has not been a vehicle related fatality or major injury accident. Pursuant to City requirements, there is signage at the intersection informing the community that ALPR is being utilized. Although it is difficult to measure any deterrent effect related to these signs, and/or the community outreach that proceeded their installation, it is logical to assume that the education of the community, coupled with "drive safe" warnings, have had a positive impact.

The Department uses ALPR technology with the goal of reducing serious crime and traffic incidents in the long term. Police detectives utilize the Flock retroactive search function for investigations and the hotlist tool for real-time alerting of suspect vehicles. Hotlist alerts are required to be officer verified prior to any enforcement action. Flock data is strictly for law enforcement purposes, and it is prohibited to be accessed, or used for any immigration enforcement, traffic enforcement, harassment, intimidation, or usage based solely on a protected class. All Department members authorized to use or access ALPR technology or data shall are accountable for knowledge of the City's Digital Use protocol (DUP) and are trained in the use of ALPR technology. All access to the system is logged, and the Department maintains an audit trail of requested and accessed information, including the purpose of the query.

The default data retention period for Flock is 30 days, however, based upon City retention requirements, the Department has contracted with Flock for 366 days of data retention. Due to an unexpected miscommunication of what data is retained by Flock Safety, the data included in this annual report is incomplete. Regarding the number of plates read and hotlist hits during calendar year 2022, only data from the second half of December 2022 was available. Going forward, the Department will manually export data from Flock every 30 days to appropriately comply with the audit requirements.