

Automated License Plate Recognition (ALPR) Study

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City of
MERCER ISLAND Police Department

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PURPOSE

1.0 ABSTRACT

This Study focuses how the Mercer Island Police Department (MIPD) will use Automated License Plate Recognition systems as a necessary law enforcement tool for patrol operations and in facilitating parking enforcement within the City. MIPD is proposing initially equipping three (3) vehicles with ALPRs. Two (2) of these are Patrol vehicles and one (1) is operated by our Police Support Officer (PSO) who among other duties enforces parking regulations. Although ALPR use by Patrol differs from ALPR use by the PSO, all rules and policies that govern ALPR use by MIPD staff are standardized.

1.1 Brief description of the purpose and proposed use of the technology.

The Mercer Island Police Department (MIPD) will use Automated License Plate Reader (ALPR) technology to aid in recovering stolen vehicles, to locate subjects of Amber and Silver Alerts and fugitives where vehicle license plate information is available, to assist with active investigations and to facilitate parking restrictions.

Patrol Use:

- Property Recovery – MIPD will employ ALPR units to locate stolen vehicles (typically abandoned).
- Investigation – On occasion, MIPD will rely on stored ALPR data within the 14-day retention period to assist in criminal investigations by identifying and locating involved vehicles, including locating subjects of Amber and Silver Alerts.
- Locating missing persons.

Parking Enforcement – Enforcement of parking violations in the City of Mercer Island in the following ways:

- Time-Restricted Parking Areas as designated by the City – Pay by Phone service can be utilized in conjunction with Vigilants LPR in specific locations for paid parking within the city. Vehicles equipped with an ALPR Parking Tool Kit can monitor time-restricted parking within the City. Officers will digitally “chalk” vehicles parked in time-restricted zones. Utilizing GPS location, the system alerts on those vehicles that are in violation of the time zone restriction upon a second pass. In addition to GPS, there is an original scan and current scan overlay image of the vehicle available for the Officers to examine so they can be certain that the vehicle has not moved. The system can also be used manually by the operators to digitally chalk a vehicle ~~tires~~ for areas of abandoned vehicles parked in violation of the 72-hour restricted locations.
- Restricted Parking Zones ("RPZ") means a portion of the street commonly used for vehicular parking where vehicles properly displaying a permit or other authorization are exempt from the posted RPZ. City staff provides MIPD with a list of vehicles permitted to park in an RPZ. Parking Enforcement Officers may use ALPR to determine that a vehicle does not have the appropriate permit or authorization to park in a specific area.

MIPD does not pool ALPR data with other local, state, or federal agencies. However, ALPR data is subject to the Public Records Act.

1.2 Reason the project is being created.

Council requested the Police Department prepare a recommendation and cost estimate for an Automated License Plate Reader (ALPR) program. This proposed work item was discussed at the January 2020 Council Retreat. The proposal was due Quarter 1 of 2020, however, COVID-19 effected many City operations, and this program was delayed. On June 2, 2020, Council requested a full Agenda Bill on ALPRs be prepared by staff and return to the council for evaluation and discussion for possible approval.

2.0 PROJECT / TECHNOLOGY OVERVIEW

ALPR technology utilizes up to a 4-camera system, which is attached to patrol vehicles to read license plates from moving and parked vehicles. It compares the license plate to several databases to determine if there is a “hit” on the license plate. A “hit” could be for stolen vehicles, missing/endangered people, wanted persons or wanted vehicles or vehicles involved in felonies, and parking violators. Officers will be required to confirm the data given in the “hit” notification before any action takes place.

2.1 Describe the benefits of the project/technology.

The benefits of an ALPR system are many-fold. Patrol ALPR and Parking Enforcement ALPR assist the City in locating and recovering stolen vehicles, locate subjects of Amber and Silver Alerts, fugitives where vehicle license plate information is available, and in investigating other crime. Parking Enforcement ALPR assists the City in managing the flow of traffic (by monitoring and enforcing the City’s parking provisions). Additionally, both ALPR systems may assist with active investigations by helping to determine the location of vehicles of interest – specifically those that have been identified as being associated with an investigation.

MIPD will use ALPR’s to recover stolen vehicles, which are often used by thieves in committing other crimes. MIPD will use ALPR’s to locate subjects of Amber and Silver Alerts, fugitives where vehicle license plate information is available, and in investigating crime. Examples include:

- A murder, in which the victim who, while dropping off passengers, was confronted and shot. A search of ALPR data located images of the vehicle plate the day of and day after the homicide. The images showed that the vehicle had been painted from black to gold in an attempt to conceal it. This assisted in apprehending the suspect.
- Seattle Police used ALPR to identify a suspect’s vehicle parked in the vicinity of a murder. Security video from surrounding businesses showed the suspect vehicle being driven in the area, which was critical in the arrest and charging of the two responsible suspects.
- Seattle Police obtained a partial plate and a description of the car in a drive-by-shooting with three innocent victims. SPD ran several partial plate searches and found one in the ALPR system that had been in the area of the shooting at the time. The vehicle matched the description and led to identification of the vehicle and ultimately to the arrest of the shooting suspects.

- A victim at a charity-operated homeless shelter was threatened and nearly stabbed by an individual who was known only by his first name. The victim reported that the suspect had stabbed people before, was extremely violent, and had left the scene in an agitated state. The victim was able to provide a partial license plate, which with other description information, enabled the Seattle Police Department to use the ALPR database to determine the car was routinely parked under a nearby overpass in the middle of the night. SPD then located the vehicle and the suspect before he hurt anyone else.
- A violent robbery in Tukwila involved a stolen VW Toureg. The suspects in that crime were involved in subsequent incidents including gun theft and a road rage incident in which a victim was shot at. Using ALPR data, SPD found several locations where the vehicle had been and photos from the ALPR database provided pictures of the current color of the vehicle as the registration reported a different color. A bulletin describing the vehicle and indicating the possible location assisted Tukwila Police in locating the vehicle and arresting the suspects in these violent crimes.

2.2 Data or research demonstrating anticipated benefits of ALPR's.

Research studies:

- Gierlack, Keith, et al. License Plate Readers for Law Enforcement: Opportunities and Obstacles. RAND Corporation. <https://www.ncjrs.gov/pdffiles1/nij/grants/247283.pdf>
- Roberts, David & Meghann Casanova. Automated License Plate Recognition Systems: Policy and Operational Guidance for Law. U.S. Department of Justice. <https://www.ncjrs.gov/pdffiles1/nij/grants/239604.pdf>

General news reporting about ALPR Benefits:

- "Auto thefts up 10 percent in Seattle's North Police Precinct". Sep. 13, 2018. KIRO News. <https://www.kiro7.com/news/local/auto-thefts-up-10-percent-in-Mercer-Islands-north-police-precinct/832872563>
- "Suspect in New York murder arrested in Spokane". Kelsie Morgan. Jun. 21, 2018. KXLY News. <https://www.kxly.com/news/local-news/suspect-in-new-york-murder-arrested-in-spokane/756515430>
- "Man suspect of sexual assault of child arrested for brazen Fremont home-invasion robbery". Mark Gomez. Sep 13, 2018. Mercury News. <https://www.mercurynews.com/2018/09/13/fremont-police-arrest-man-suspected-of-home-invasion-robbery-sexual-assault-of-child/>
- "Man Sentenced to 7 Years for Northeast DC Gunpoint Carjacking of Nun". Sophia Barnes. Sep 7, 2018. NBC Washington. <https://www.nbcwashington.com/news/local/Man-Sentenced-to-7-Years-for-Carjacking-Nun-in-Northeast-DC-Brookland-492714631.html>
- "License plate readers help Miami Beach police crackdown on crime". Andrew Perez. Jul 31, 2018. ABC 10. <https://www.local10.com/news/florida/miami-beach/license-plate-readers-help-miami-beach-police-crack-down-on-crime>
- "License plate readers helping police in many ways". Tony Terzi. Sep 5, 2018. FOX 61. <https://fox61.com/2018/09/05/license-plate-readers-helping-police-in-many-ways/>

- “License plate reader technology scores break in hit-and-run probe”. Paul Mueller. Sep 20, 2018. CBS 12. <https://cbs12.com/news/local/license-plate-reader-technology-scores-break-in-hit-and-run-probe>
- “License-plate scanners result in few 'hits,' but are invaluable in solving crimes, police say”. Karen Farkas. Dec 4, 2017. Cleveland.com. https://www.cleveland.com/cuyahoga-county/index.ssf/2017/12/license_plate_readers_result_in_few_hits_but_are_invaluable_in_solving_crimes_police_say.html

2.3 Technology Specifics.

ALPR hardware consists of high definition infrared digital cameras that are mounted on Patrol vehicles.

The high-speed cameras capture images of license plates as they move into view, and associated software deciphers the characters on the plate, using optical character recognition. This interpretation is then immediately checked against any license plate numbers that have been uploaded into the onboard, in-vehicle software system. Twice a day, the License Plate Reader File (known as the HotList - a list of license plate numbers from Washington Crime Information Center (WACIC) and the FBI’s National Crime Information Center (NCIC)), is uploaded into the ALPR system (via a connection to WACIC). This is the source of “hits” for the license plate reader system. The license plate numbers compiled on the HotList “may be stolen vehicles, vehicles wanted in conjunction with felonies and wanted persons” (WSP Memorandum of Understanding No. C141174GSC; March 11, 2014). Other sources include the information provided from ‘Pay by Phone’ service for metered parking enforcement. No ALPR data collected by MIPD ALPR-equipped Patrol vehicles are automatically uploaded into any system accessible by other agencies. Instances where Officers take action on a Hit are documented directly onto a citation or into case report, depending on the type of incident and uploaded into the Police Records Management System.

After researching 10 different ALPR vendors, Staff recommends the City purchase the system from Vigilant Solutions to provide both hardware and software for the ALPR system. In addition to the cameras, Vigilant provides the backend server(s) through which camera reads are interpreted and administrative control is managed. This includes the ability to set and verify retention periods, track and log user activity, view camera “read” and “hit” data and manage user permissions.

The configuration is designed so that the cameras capture the images and filter the reads through the linked software to determine if/when a hit occurs. When the software identifies a hit, it issues an audible alert, and a visual notification informs the user which list the hit comes from – HotList; time-restricted, or overtime parking.

In ALPR-equipped vehicles, a “hit” triggers a chain of responses from the user that includes visual confirmation that the computer interpretation of the camera image is accurate, and the officer verbally checks with Dispatch or on the Mobile Data Computer for confirmation that the license plate is truly of interest before any action is taken. This is done to ensure the system accurately read a license plate. If the characters of a plate are misread the operator has the ability to correct the read. If a hit is determined to be incorrect the operator can select the incorrect button and the hit will be disregarded.

All data collected by the ALPR systems (images, computer-interpreted license plate numbers, date, time, and GPS location) are stored on CJIS Compliant secure encrypted servers and retained for 14 days as per policy. After 14 days, all data collected by the ALPR systems are automatically deleted unless specific data has been exported as serving an investigative purpose – in which case, it is included in an investigation file.

3.0 USE GOVERNANCE

3.1 Processes that are required prior to use, or access to ALPR systems.

Prior to gaining access to the ALPR system, potential users must be trained. Once this training has been verified with the ALPR administrator, users are given access and must log into the system with unique login and password information whenever they employ the technology. They remained logged into the system the entire time that the ALPR system is in operation. This login is auditable and managed within the system. Officers are assigned the vehicles to use while on-shift.

3.2 List the legal standards or conditions, if any, that must be met before the project / technology is used.

ALPR systems can be used during routine patrol or specific to a criminal investigation (i.e., to locate a stolen vehicle), as per MIPD Policy. The policy requires that users must be trained; they must be certified in A Central Computerized Enforcement Service System (ACCESS) – a computer controlled communications system maintained by Washington State Patrol that extracts data from multiple repositories, including Washington Crime Information Center, Washington State Identification System, the National Crime Information Center, the Department of Licensing, the Department of Corrections Offender File, the International Justice and Public Safety Network, and PARKS - and trained in the proper use of ALPR. In addition, the policy limits use of the technology to strictly routine patrol, criminal investigation, or for parking enforcement. Further, the policy clarifies that users may only access ALPR data when that data relates to a specific criminal investigation. Records of these requests are purged after 14 days.

4.0 DATA COLLECTION AND USE

4.1 Details about what information is being collected from sources other than an individual, including other IT systems, systems of record, commercial data aggregators, publicly available data and/or other city departments.

Data collected from ALPR include license plate image, computer-interpreted read of the license plate number, date, time, and GPS location.

All ALPR-equipped vehicles receive a daily HotList through Vigilant's back office LEARN. These Hot list's come from the Washington State Patrol that contains national stolen vehicle plate data published daily by the FBI. The Washington State Patrol places the HotList file on a server available through ACCESS to those agencies that have a specific and signed agreement with WSP to access and use the information.

4.2 What measures are in place to minimize the inadvertent or improper collection of data?

When the ALPR system registers a hit, a match to a license plate number listed on the HotList (as described in 2.3 above), the user must verify accuracy before taking any action. For instance, when the system registers a hit on a stolen vehicle, the user must visually verify that the system accurately read the license plate and, if so, must then contact Dispatch to verify the accuracy of the hit – that the vehicle is actually listed as stolen. Only then does the user take enforcement action.

Unless a hit has been flagged for investigation and exported from the database for this purpose, all captured data is automatically deleted after 14 days, per department retention policy. Data related to a flagged hit is downloaded and maintained with the investigation file for the retention period related to the incident type.

4.3 How and when will the project / technology be deployed or used? By whom? Who will determine when the project / technology is deployed and used?

ALPR systems will be used in Patrol on a daily basis by authorized users (see 3.1 above). Supervisors will determine when ALPR-equipped vehicles will be on patrol and by which trained personnel. Detectives may access ALPR's data in connection with investigations of criminal incidents based on reasonable suspicion.

4.4 How will data that is collected be accessed and by whom?

All data collected are hosted on the vendor's encrypted and secure servers. The data is not accessible by vendors without knowledge and/or permission of City personnel.

Only authorized users can access the data collected by ALPR. Per Policy authorized users must access the data only for active investigations and all activity by users in the system is logged and auditable. MIPD personnel within specific investigative units have access to ALPR data during its retention window of 14 days, during which time they can reference the data if it relates to a specific investigation.

Data removed from the system/technology and entered into investigative files is securely input and used on MIPD's password-protected network with access limited to detectives and identified supervisory personnel.

All MIPD employees are backgrounded and access is controlled by MIPD staff and Policy provisions governing Department Information Systems including governing Department-Owned Computers, Devices & Software.

5.0 Data Sharing

5.1 Which entity or entities inside and external to the City will be data-sharing partners?

Data may be shared with outside entities in connection with criminal prosecutions:

- Mercer Island City Attorney's Office
- King County Prosecuting Attorney's Office
- King County Department of Public Defense
- Defense Attorneys
- Mercer Island Municipal Court
- King County Superior Court
- Similar entities where prosecution is in Federal or other State jurisdictions

Data may be made available to requesters pursuant to the Washington Public Records Act, Chapter 42.56 RCW ("PRA"). MIPD will apply applicable exemptions to the data before disclosing to a requester. Individuals have the right to inspect criminal history record information maintained by the department (RCW 10.97.030, MIPD Policy). Individuals can access their own information by submitting a public records request.

Per MIPD Policy, the Records Unit is responsible for receiving, recording, and responding to requests "for General Offense Reports from other City departments and from other law enforcement agencies, as well as from insurance companies."

Discrete pieces of data collected by the ALPR may be shared with other law enforcement agencies in wanted bulletins, and in connection with law enforcement investigations jointly conducted with those agencies, or in response to requests from law enforcement agencies investigating criminal activity as governed by MIPD Policy.

5.2 Are there any restrictions on non-City data use?

Law enforcement agencies receiving criminal history information are subject to the requirements of 28 CFR Part 20. In addition, Washington State law enforcement agencies are subject to the provisions of WAC 446-20-260, and RCW Chapter 10.97.

Once disclosed in response to Public Records Request, there are no restrictions on non-City data use; however, applicable exemptions will be applied prior to disclosure to any requestor who is not authorized to receive exempt content.

6.0 LEGAL OBLIGATIONS, RISKS AND COMPLIANCE

6.1 What specific legal authorities and/or agreements permit and define the collection of information by the project/technology?

ALPR use is not legally constrained at the local, state, or federal level. Instead, the retention of data is restricted. MIPD will retain license plate data that is not case-specific (i.e., related to an investigation) for 14 days.

6.2 Describe what privacy training is provided to users either generally or specifically relevant to ALPR's.

Users are trained in how to use the system and how to properly access data by other trained MIPD users. The administrator confirms the training before providing access to new users.

MIPD Policy mandates that all employees, including ALPR users, who use terminals that have access to information in WACIC/NCIC files must be certified by completing complete Security Awareness Training with recertification testing required every two years, and all employees also complete City Technology and Privacy Training. Failure to comply with ACCESS/NCIC/WACIC user requirements can result in termination of the right to continue using ACCESS services.

6.3 Given the specific data elements collected, describe any privacy risks identified and explain how they are mitigated.

Each component of data collected, on its own, does not pose a privacy risk. Paired with other known or obtainable information, however, an individual may be able to personally identify owners of vehicles, and then use that information to determine, to a certain degree, where specific vehicles have been located. Because MIPD's ALPR cameras are few in number, not fixed in location, vehicles equipped with ALPR generally do not follow the same routes, and the records not related to a specific incident are only retained for 14 days, privacy risk is substantially mitigated because of the limited ability to identify vehicle patterns.

Per MIPD Policy, staff can access the stored data in the ALPR system for specific criminal investigation or department related civil or administrative action. Any activity by a user to access this information is logged and auditable. Additionally, all collected data that is not relevant to an active investigation is deleted 14 days after collection.

Washington Public Records Act requires release of collected ALPR data, however, making it possible for members of the public to make those identification connections on their own if they have access to the information necessary to do so, such as an independent knowledge of a particular individual's license plate number.

7.0 MONITORING AND ENFORCEMENT

7.1 Describe how the project/technology maintains a record of any disclosures outside of the department.

Data collected by the ALPRs in the field is disclosed pursuant to Public Disclosure Law. The only data available for disclosure is that data that remains in the system within the 14-day retention window. Hits where the Officer took action, will be contained within the case, infraction, citation, or incident report completed by the Officer and stored in the Records Management System of the Police Department. This data will be retained per records retention rules.

The Records Unit of the Police Department is responsible for receiving and recording all Public Disclosure Requests (PDR's) or requests in the form of 'legal discovery'. These requests are retained per Washington State Law.

Discrete pieces of data collected by ALPR may be shared with other law enforcement agencies in wanted bulletins, and in connection with law enforcement investigations jointly conducted with those agencies, or in response to requests from law enforcement agencies investigating criminal activity as governed by MIPD Policy.

Any requests for disclosure are logged by MIPD's Records Unit, as appropriate. Any action taken and data released subsequently is then tracked through the request log. Responses to Public Disclosure Requests, including responsive records provided to a requestor, are logged in Cities PDR system and retained by MIPD for two years after the request is completed.