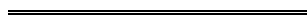


The Bill Blackwood Law Enforcement Management Institute of Texas



License Plate Readers: A Versatile Law Enforcement Tool with Many Uses



**A Leadership White Paper
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ABSTRACT

Police patrol vehicles are filled with many distractions such as phones, radios, computers, and radar units. Many police departments are looking for ways to do more with less. The license plate reader (LPR), both moving and stationary, is the answer to many of these problems. These license plate readers run thousands of license plates per day automatically, in daylight, darkness, and rain. They compare the license plates against information in databases, so the officer is free to complete other work tasks. The database contains missing persons, wanted persons, stolen property, or other information that may be attached to a license plate record. Privacy concerns have been raised and addressed in the courts, and license plates can be read if the officer is lawfully in the location where they are viewing the plate. The result is a good return on the initial cost of the equipment through the serving of warrants, locating wanted and missing persons, recovering stolen property, and freeing police officers time up to perform their normal patrol duties. The license plate reader is silently checking thousands of license plates, never complaining; it does not need a rest break, and it is very effective.

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INTRODUCTION

This is not science fiction anymore; one automatic license plate reader (LPR) can read thousands of license plates per hour. The first state to issue license plates was Massachusetts in 1903 (“History of the Plate,” n.d.). Vehicle license plates associate the vehicle to the owner’s information stored in a computer database. LPRs are also known as Automatic Vehicle Identification, Car Plate Recognition, Automatic Number Plate Recognition, Car Plate Reader, and Optical Character Recognition for Cars, to name a few (“License plate Recognition,” 2008). The main purpose of any license plate reader, whether mobile or stationary, is to read license plates and check information attached to that file database.

The LPR was first invented in the United Kingdom in 1976, but it was not until 1981 that the first stolen car was recovered and the driver was arrested using the LPR. (Automatic Number Plate Recognition, 2012). License plate readers are a versatile law enforcement tool and the list of uses for this device continues to grow. Automatic license plate readers help locate missing persons, find stolen vehicles, serve warrants, solve crimes, and assist in detecting toll road violators. As these automatic license plate readers are used, more and different uses are found to benefit communities. There are mobile as well as stationary LPRs (Hefferman, 2010). There are a great number of uses for fixed post LPRs and the LPRs that are attached to a vehicle. The fixed post readers are sometimes used for measuring the speed of a vehicle between two readers over a known distance. They are also used at border crossings, parking lots, along roadways, at entrances to communities, and even to read shipping containers at sea ports. Mobile LPRs can be attached to any vehicle and can read

license plates at highway speeds. These cameras work in both in the light and at night, and they work when it is raining. Distributors for this product are easy to locate, training time is short, they increase safety by automating tasks inside patrol cars, and they are a force multiplier by enabling one officer to patrol while the equipment runs thousands of license plates. On the other hand, there are the critics who say the initial cost of the equipment and training is too high. There also have been complaints of invasions of privacy by citizens and the American Civil Liberties Union (ACLU). Police departments and cities should implement the automatic license plate reader because of the many benefits they provide in crime fighting.

POSITION

A very useful, yet noncriminal, use of the LPR is to locate missing persons. The LPR was instrumental in locating a missing 2 year old child in Seattle, Washington in 2011. The child was with his grandfather, and after they did not return or answer a cellular telephone, the child's parents thought the grandfather had relapsed into taking illegal drugs. The police department was called and a search was begun for the vehicle that the two left in. An officer, using an LPR, was able to run the history record of the vehicles scanned into the LPR unit and their global satellite system (GPS) location for that day. The car was traced back to an address in the city, where both the child and the grandparent were found unharmed ("Update," 2011). In another example, a 57 year old man with dementia was reported missing from Anaheim, California. The sheriff's office placed an alert on the missing man's license plate number while the search continued. The U.S. Border Patrol, near El Paso, Texas, was alerted when the license plate scanner at the border crossing to Mexico alerted on the missing license plate.

This was a happy ending for the missing man and his family, when they were later reunited due to this advanced technology (“Vacaville police,” 2011). This is not the type of use that the LPLR was designed for, but many officers have been able to enter missing juveniles, young missing people, and senior citizen’s license plates into the license plate database. Toll roads are installing these LPRs to keep track of violators. It is very comforting to know that police departments are using these to keep track of registered sex offenders by entering the sex offender’s license plates into the database. If an alert is made while passing a playground or school, the officer can investigate further.

One of the first uses of LPRs was to locate stolen vehicles. In the past, an officer would patrol his area. When the officer saw a suspicious vehicle, he would use the radio to call the license plate into the dispatcher to have the registration ran. The dispatcher would receive the registration return and radio the information back to the requesting officer. Later on, the officer was able to type the license plate into the laptop computer, which was mounted in the patrol car. This is a slow process when compared with the license plate reader. In an article written on June 9, 2009, Trooper Callister stated he had to wait his turn to have dispatch run license plates, and he was lucky to run 10 vehicles that entire day (Ferraresi, 2008). With this new technology, an officer can drive down the street doing normal patrol while the license plate reader does its job. When the LPR sounds an alarm, it has read a license plate with some sort of notification attached to the record. Officers in Long Beach, California were able recover 275 stolen vehicles and almost 1,000 missing license plates with this newest technology (Schulz, 2010).

Distracted driving is an issue while driving any vehicle let alone a patrol car with many interior distractions. Police cars are equipped with many other devices, such as radios, radars, low jack devices, and cell phones that take the driver's attention away from the road. These are some causes for motor vehicle accidents that police departments are looking at ways to reduce. In 2010, authorities checked the car computer of an Teaneck Police Department officer killed in a car accident. The officer had been checking a license plate just before he left the roadway and struck a telephone pole ("Teaneck police officer dies," 2010). With an automatic license plate reader this death may have been prevented. An officer has to look away from the roadway to run a license registration on a car computer. Using an LPR takes this task away from the driver, and the LPR gives an audible sound when the plate has an alert attached to the license plate.

Often known as the murder capital of the the United States, the District of Columbia began using LPRs to reduce the murder rate within the city limits. This was the lowest number of murders for the city for the year in 2010. To reduce the shooting rate, police used shot spotter technology to determine where a gunshot was fired from. The LPR recorded the vehicles that were in the area. With further police work, homicides were reduced 9% from the previous year (Cella, 2011). LPRs played a significant role in lowering the murder rate along with using the other technology and cooperation between the police and citizens. In Georgetown, South Carolina, a man was suspected of killing his wife by stabbing her 25 times. He fled his his wife's car and, later, the car information was entered into a database. The city of Georgeton has four stationary cameras in various locations along the highway. One of these cameras

alerted police to the vehicle location, and the murder suspect was stopped and arrested. (“Highway cameras help catch accused killer,” 2011). Howard County police were cruising through a park and ride parking lot when the LPR alerted on a stolen vehicle. The driver, who was asleep in the vehicle, was checked and found to have warrants for two bank robberies (“License plate alerts police to stolen vehicle,” 2010). These are but a few examples of the LPR being used to locate and capture very dangerous offenders and put them behind bars before they can harm others.

“Doing more with less” and “force multiplier” are two catch phrases that police departments and cities are using in these times of diminishing budgets. One officer can drive the patrol area while the LPR is quietly checking every license plate that is passed. Units are being deployed into high crime areas and getting “hits” on the LPR. Making arrests in the high crime areas, due to LPR warrant alerts on license plates, removes the criminal element from that area. While that suspect is in jail, he is unable to commit further crimes.

Many departments are using LPRs to serve parking violations warrants. Cincinnati police, in a one day operation, were able to impound 90 vehicles with a total of 250 unpaid parking citations (Edwards, 2011). After that, a parking ticket amnesty program was offered in an attempt to collect on the 62,000 unpaid parking tickets valued at over 12 million dollars. That is one strong revenue stream for cities attempting to meet budget shortages. This is also a motivator for citizens to get down to the local court and take care of outstanding citations.

Another important use for the LPRs is to gather information. When a license plate is read by a LPR, the vehicle information (along with a GPS location, and

time/date stamp) is attached to the record. These records can be stored indefinitely (Ferraresi, 2008). This information can be used to check traffic volume for street planning and can also help solve crimes. For example, a felony suspect is fleeing the scene of a crime. Officers may only get a witness's color description of the fleeing vehicle but may have passed the fleeing vehicle, or the vehicle passed a fixed post LPR. When the officer arrives at the scene, the victim or a witness is able to give a partial license plate. The investigating officer would then be able to download the information captured by the LPR, and this information would possibly lead to the identification of the suspects.

COUNTER POSITION

There have been concerns by police departments about the high cost of the LPR equipment, invasion of privacy, the LPR reading the wrong license plate, the cost to train the officers, and concerns about the cost to defend lawsuits. Some departments and cities are having a difficult time convincing their city councils that the high cost of the equipment is worth the investment for their cities. An LPR can cost between \$15,000.00 and \$25,000.00 per unit depending on which make or model is purchased. Deciding which of the different options, such as two or four cameras mounted on each car, affects the price. Des Moines police are looking at purchasing two LPRs at a cost of \$40,000.00, and are researching 10 to 12 of the available vendors. Like most departments, they will try the equipment out before deciding whether or not to purchase more units (Alex, 2011).

There are many ways to pay for the LPR technology. The Buckeye Police Department in Arizona received a stimulus grant for \$21,614 to purchase LPR

equipment. Police departments are using seized funds to purchase the LPRs. Police departments can justify the equipment purchase as a force multiplier because an officer is able to use the LPR to read license plates and patrol his district at the same time. One officer can run thousands of license plates during his patrol shift. The Cumberland County Sheriff Department was able to get a Homeland Security grant for \$159,000.00 and will purchase six license plate readers. These six LPRs are being divided up between other government agencies within the county (Adomaitis, 2011). Many departments, such as the Gwinnett County police, were able to use seized funds to purchase the license plate readers. They used \$60,000.00 of seized money to buy 3 LPRs (Enstep, 2011). The Buckeye, Arizona police department received \$21,614.00 from The Byrne Justice Assistance Grant Costs to purchase the LPRs range from \$15,000.00 to \$25,000.00 each, depending on the manufacture of the equipment and individual equipment features. PoliceGrantsHelp.Com includes numerous website links to apply for grants to pay for LPRs. The state of Arizona is also getting help purchasing LPRs from the insurance industry lobby. The state of Arizona worked with the insurance lobby by replacing all of the state license plates with LPR compatible plates. Together with the state, the insurance lobby is trying to eliminate uninsured drivers.

One of these concerns was privacy. There was little guidance from the courts for quite some time. In Columbia, Missouri, the police department asked for LPRs and many questions arose. The council was concerned with what would happen with all of the information captured and who would be allowed to access the large amount of information that would be stored. Another councilwoman was concerned that license

plates were being scanned and most of those vehicles had not been suspected in any crime (Denny, 2009).

The U.S. Supreme court refused to hear a case concerning a privacy challenge using the license plate readers. It let the United States Court of Appeals decide the case of *United States V. Curtis Ellison*. The court decided, as did the Fifth, Eighth, and Ninth in similar rulings, that the public does not have any specific rights to privacy concerning license plate readers. The court ruled that police officers do not have to have probable cause to check random license plates on vehicles. In order for the officer to run the license plate, he must be in a lawful position or place to see and run the license plate (Moore, 2011).

Opponents of automatic license plate readers have complained that there have been errors in the LPRs interpreting the license plate incorrectly. In one case, a female had stored her vehicle before going on a business move to Korea. The Illinois Toll Road Authority mailed her a \$63.00 fine notice for running the toll without paying. She chose not to fight the citation and mailed the fine in. A year later, she received another citation for the same amount even though the car was still parked in a storage lot. It was discovered that the LPR at the toll booth made a mistake between the number 8 and the number 0 (Lutterell, 2010). The license plate readers are country specific due to the different styles and designs of license plates. There are still many challenges for the LPR in recognizing the different license plates due to each state in the United States having so many different styles of license plates. These concerns are being addressed with improvements in technology and by reviewing the "hits or flags" by a human. The incidents of error are few and far between, but they seem to get the most attention,

which overshadows the record of correctly reading thousands of license plates per shift, each day. The correct hits are recovering vehicles and property, finding wanted and missing persons, and are helping to monitor traffic each and every day of the year.

CONCLUSION

The license plate reader is a useful and important tool to many governmental agencies, and they should implement their use in their jurisdictions. While an officer drives his patrol car, or a roadside mounted LPR is posted next to the side of the roadway, the LPR is able to quietly run thousands of license plates. An automatic alert will notify the police officer if there is an amber alert, stolen vehicle, expired registration, uninsured, wanted person, or any another notice attached to the vehicle.

A city can start out the implementation of an automatic license plate reader program by researching the LPR units available for sale and the options for purchasing the units, such as government grants or the use of seized funds. If no other funds are available, the computer storage hardware can be purchased and then the agency would only need to purchase additional cameras for the cars or fixed post cameras. The International Association of Chiefs of Police website has a sample license plate reader policy dated 8/10 that can be purchased. Things to consider when purchasing the equipment include the policy naming the people who will have access to the license plate reader storage information and how long the storage information will be kept.

The license plate reader is a force multiplier enabling an officer to perform his patrol duties while checking moving and parked vehicles for attached alerts in any number of databases. There are city, state, federal, and international databases that the license plate reader can check and run license plates against. The expensive

equipment can be purchased with seized funds, and there are a number of government grants to pay for this beneficial equipment. The insurance companies have an interest in recovering stolen vehicles and stolen property, so they also have equipment purchase grants. Officer training for the LPR is very short, usually only a few hours, and the training cost is included in the purchase price. Technology has improved along with the accuracy of reading the license plates. The officer will still have to verify the license plate number by looking at it and comparing the reading by the automatic license plate reader to ensure accuracy. A machine cannot be expected to be 100% accurate, so the human eye will be needed for verification. This automatic license plate reader technology is a useful new tool available to city, state, and federal law enforcement. This is an easy piece of equipment to implement and is being used to recover stolen property, missing persons, and locating wanted suspects among many other uses.

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