

## The Results Are In: Automatic License Plate Reader Technology Leads to Success

**A**spect wanted for murder in Arizona flees toward Los Angeles. An Arizona police department contacts the Los Angeles County Sheriff's Department (LASD) and asks that deputies stay on the lookout for the suspect's vehicle. LASD does more than keep a lookout: detectives review information from the county's Automatic License Plate Reader (ALPR) database and find that car parked at a local motel. Suspect arrested, case closed.

That's just one of many recent success stories from around the country in which ALPR technology has played a part. A new report published by the International Association of Chiefs of Police (IACP), *License Plate Reader Systems: Policy and Operational Guidance for Law Enforcement*, summarizes the results of a recent IACP study that shows just how successful agencies across the United States have been in implementing ALPR technology, documents some of the technology's pros and cons and offers details on lessons learned.

IACP Project Manager Meghann Tracy explains that the study had two components: a survey of 500 agencies to gauge the level of implementation of ALPR technology, and site visits to 10 agencies that had used ALPR for at least 12 months. Agencies selected to participate in the survey represented a mix of agency types and sizes, and the survey had a main goal of finding out why agencies became interested in implementing the technology, how they use ALPR and the values they have realized from using it.

"A lot of them go in with the idea that ALPR is great for finding stolen vehicles, but they often learn it has many other uses as well," Tracy says. "It's extremely helpful as an investigative tool. For instance, a police department received a call about a robbery, and officers driving a vehicle equipped with ALPR passed the suspect vehicle on the way to the call without knowing they had done so since, at that time, officers had not yet interviewed witnesses. The witnesses were subsequently able to describe the car and provide a partial plate number for the vehicle.

"The agency reviewed the LPR system, which captures and retains images of vehicles and their license plates and the time, date and location they were observed, and using a wild card search, identified a vehicle that matched the description provided by the witnesses. As a result, police were able to determine the license plate number and the registered owner of the vehicle, which gave them something concrete on which to base their investigation," she says.

Tracy says that many agencies have also found ALPR to be helpful at checkpoints and they report more successful traffic stops. "They're really getting the people they're looking for."

"Previously, an officer driving down the street had to be alert for specific makes and models of vehicles, and then call for a check on a license plate if something looked suspicious," says Dave Roberts, IACP Technology Center senior program manager. "ALPR frees them to be alert in other ways while it automatically captures all the license plates and checks them against lists of stolen vehicles, unpaid parking tickets, expired registration or Amber Alerts."

Of the 500 agencies that received the survey, 261 responded that they did not use the technology, while 80 responded positively. Of those that use ALPR, 40 completed the entire survey and the rest indicated either that they had just started using the technology or they could not complete the survey due to confidentiality issues. Participating agencies included municipal police departments, sheriff's departments and state police agencies. Tracy says the IACP looked for common traits among participants to try to determine whether certain types of the technology work better for certain types of agencies or in specific geographic areas, and includes the results of that analysis in the report.

"One of the biggest lessons learned is that agencies need to bring IT in at the beginning of the implementation process. ALPR definitely is not 'plug and play,'" Tracy says. "There is a lot to be considered when working with

this technology. There are storage concerns, there is data transfer, there are just a lot of things that IT needs to be in on from the beginning. If a police department doesn't have its own IT department, but rather draws from a pool for the entire municipality, it might be a good idea to ask to have a person assigned to the project who can become familiar with the technology."

Tracy says that many respondents also cited the need for more training as another important lesson learned. Several responses suggested that agencies should plan to "establish power users," that is, officers who thoroughly understand and regularly use ALPR and can answer questions for officers who are just learning to use the technology. If several of these resource officers are available, answering questions won't become overwhelming for any one of them. Also, if one officer retires or transfers, other experts remain available.

Tracy says numerous agencies named conducting research during the planning process as the third "big one" when it came to lessons learned.

"Talk to other agencies in your area. Go visit them. Go ride along with them. Check a vendor's references, but also talk to agencies other than the ones a vendor gives as references," she says. She adds that if agencies learn about the technical challenges that other municipalities have faced, it may help them sell the idea to their community that the cheapest technology may not necessarily be the best.

"If you can provide your city with an explanation of why a more expensive system is a better option for you, it may cost less in the long run because you won't be spending additional money to fix problems," Tracy says. "For example, some agencies did not purchase enough data storage in the beginning, and had to pay for it later."

**To download a copy of License Plate Reader Systems: Policy and Operational Guidance for Law Enforcement, go to <http://www.iacp.org/>.**

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## **LOS ANGELES COUNTY DEPUTIES TAKE TO LICENSE PLATE TECHNOLOGY**

The Los Angeles County Sheriff's Department (LASD), one of 10 sites visited during the International Association of Chiefs of Police (IACP) survey, started using Automatic License Plate Reader (ALPR) technology in 2007 more or less as an experiment — one that has proven very successful, according to Lt. Chris Cahhal of the agency's Law Enforcement Information Sharing Program.

Cahhal says LASD originally installed the technology in less than a dozen cars, because although it appeared to be a good way to locate stolen vehicles, the agency wasn't sure of its full value. ALPR quickly gained acceptance and approval in the field, and today, the sheriff's department uses ALPR in 57 cars (out of 2,500) scattered throughout the county as well as at four fixed sites. Cahhal says the technology has been accepted so well the county could easily double or triple the size of its installation, it's just a matter of obtaining funding.

"I get calls from station captains all the time wanting to know how to get more ALPR units assigned."

Funds for the upgrades and the additional units have come from a variety of different sources, such as narcotics forfeitures and grants, in addition to the department's budget. Also, Cahhal says, there are 40 contract cities in Los Angeles County, and some funding has come from those municipalities as word about ALPR's ease-of-use and accurate alerts spread.

"It was very user-friendly right from the beginning. It didn't require a lot of training and that's usually key in anything," Cahhal says. "The big fear was that the deputies would find the systems difficult to use and only a small percentage of deputies would embrace the technology. Acceptance, though, has been high and we don't have to send them to extensive classes to train them."

"Our biggest 'Ah-ha!' in the whole thing was the need to give the individual stations a lot of leeway on how to use it," he says. "We have 23 stations, each with its own unique workload and unique set of enforcement priorities. An alert associated with a misdemeanor traffic warrant might be welcomed on a slow night at one station and considered an annoyance at another station on a busy night. We give the deputy the option on which hotlist they want to be alerted on. They can be alerted on everything or just those vehicles that are stolen or associated with a felony. We try to make it as easy for the deputies in the field as possible."

LASD's original system required deputies to download their scans onto a thumb drive and bring them into the station to upload at the end of a shift; the county has since moved on to using wireless "hot spots" in the parking lot where they can download the most current lists before a shift starts and upload new scans to the database when the shift ends. Soon, LASD will switch to another system where updates and downloads occur automatically in real time.

Implementing this new technology and these subsequent upgrades has not only made it easier for deputies in the field to patrol, it also resulted in some quick successes.

"Seasoned deputies who pride themselves on catching car thieves were surprised at some of the cars and drivers that generated stolen vehicle alerts," Cahhal says.

While those alerts generate results in the field, LASD also downloads all of the system's scans into a central database that can be searched and analyzed by detectives. Information generated through this type of research has resulted in a number of arrests for major crimes such as rape and murder, he says. Another 22 local police departments in the county also use ALPR and share data with LASD, expanding the detectives' resources for research.

"A typical research-related success involved a security guard's being shot at a local bar," Cahhal says. "Witnesses got the license number and deputies ran it. A detective checked to see if it had been scanned before, and although it was registered in another county,

it had been scanned 19 times at a local residence. The deputies went there and arrested the suspect and found the gun. Everybody says this would have been difficult to solve if not for ALPR."

***For more information on the Los Angeles Sheriff's Department use of ALPR technology, contact Lt. Chris Cahhal at [CSCahhal@lasd.org](mailto:CSCahhal@lasd.org). For information on the National Institute of Justice's programs related to license plate recognition technology, contact William Ford at [william.ford@usdoj.gov](mailto:william.ford@usdoj.gov).***



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