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## Automated License Plate Recognition (ALPR) in Policing

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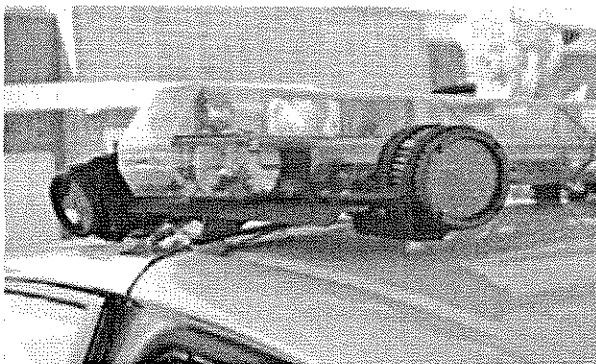
**L**aw enforcement agencies throughout the nation are increasingly adopting automated license plate recognition (ALPR) technologies to enhance their enforcement and investigative capabilities, expand their collection of relevant data, and expedite the tedious process of manually comparing vehicle license plates with lists of stolen, wanted, and other vehicles of interest. ALPR systems function to automatically capture an image of the vehicle's license plate, transform that image into alphanumeric characters, compare the plate number acquired to one or more databases of vehicles of interest, and alert the officer when a vehicle of interest has been observed, all within a matter of seconds.

The IACP has undertaken several research initiatives associated with ALPR technology in recent years. The International Association of Chiefs of Police passed a resolution about ALPR technology during the 2007 IACP Annual Conference in New Orleans, Louisiana:

"This resolution strongly encourages the U.S. Congress to fully fund license plate reader and related digital photographing systems, including interrelated information sharing networks, for the northern and southern borders of the United States and encourages all countries to use like technology, to the extent possible, to share appropriate law enforcement information."<sup>1</sup>

### Privacy Impact Assessment

In response to the growing implementation of License Plate Readers in law enforcement agencies throughout the United States and around the world, the IACP, through the LEIM Section,<sup>2</sup> developed a *Privacy Impact Assessment (PIA) Report for the Utilization of License Plate Readers* for law enforcement in 2009.<sup>3</sup> Published September 2009, the PIA assesses privacy issues that may emerge as ALPR systems are implemented and license plate information is captured. The report is designed to evaluate the impact ALPR systems can have on the public's privacy interests and to make recommendations for the development of information management policies intended to govern an agency's operation of an ALPR system. IACP published a Model Policy on ALPR in August 2010.<sup>4</sup>



### ALPR Research

In addition, the IACP conducted research sponsored by the National Institute of Justice regarding ALPR implementation among law enforcement agencies and released the final report from the study

in 2012. The report, *Automated License Plate Recognition (ALPR) Systems: Policy and Operational Guidance for Law Enforcement*, was electronically published October 2012.<sup>5</sup> In order to identify emerging implementation practices and provide operational and policy guidance to the field, the IACP surveyed a random sample of 444 local, state, and tribal law enforcement agencies in 2009. A total of 305 agencies responded to the initial survey (68.7 percent) and three-quarters of respondents (235 agencies, 77 percent) indicated that they were not using ALPR, while 70 agencies (23 percent) responded that they were using ALPR. A longer, more detailed survey was sent to the 70 agencies who confirmed they were using ALPR, and 40 agencies (57.1 percent) responded.

Survey respondents had typically implemented mobile ALPR systems (95 percent), and were primarily using ALPR for auto theft (69 percent), vehicle and traffic enforcement (28 percent), and investigations (25 percent). Agencies reported increases in stolen vehicle recoveries (68 percent), arrests (55 percent), and productivity (50 percent). Fewer than half (48 percent) had developed ALPR policies. Over half (53 percent) updated their ALPR hot lists wirelessly, and nearly half (43 percent) updated their hot lists once each day. Agencies varied substantially in the data retention practices. A total of 40 percent of respondents retain ALPR data for six months or less (n=16). Five respondents (13 percent) indicated they retain ALPR data indefinitely, while two indicated that retention is based on the storage capacity of the equipment installed.

A major impediment to effective deployment of ALPR technology is the lack of standards for plate design and inconsistent business rules among jurisdictions issuing license plates across the United States and Canada. In 2011–12, the IACP participated in the American Association of Motor Vehicle Administrators (AAMVA) ALPR Working Group, "...to identify best practices in license plate design, manufacture and issuance to aid jurisdictions in creating and issuing license plates best suited to vehicle identification." The resulting report, *Best Practices Guide for Improving Automated License Plate Reader Effectiveness through Uniform License Plate Design and Manufacture*, was published in 2012 and is available at <http://www.aamva.org/law-enforcement>.

### ALPR Performance Standards

Following the NIJ standards development process, IACP project staff assembled a Special Technical Committee (STC) of law enforcement practitioners, laboratory representatives, and other subject matter experts tasked with developing the three ALPR standards documents: (1) performance requirements, (2) testing and certification protocol, and (3) a selection and application guide (SAG). IACP has convened six roundtable committee meetings of the STC to date and is planning to hold a seventh later this month. STC members have completed draft versions of the three standards documents and plan to use the April 2013 session to evaluate the draft test methodology as written.

It is anticipated that by late fall 2013 the draft standards documents will be released by NIJ for a 45-day public comment and review on the *Federal Register*. Thereafter, the STC will reconvene to review what has been submitted and move towards finalizing its work.



### Conclusion

ALPR technology is a significant tool in the arsenal of law enforcement and public safety agencies. Realizing the core business values that ALPR promises, however, can be achieved only through proper planning, implementation, training, deployment, use, and management of the technology and the information it provides. Like all tools and technologies available to law enforcement, ALPR must also be carefully managed. Policies must be developed and strictly enforced to ensure the quality of the data, the security of the system, compliance with applicable laws and regulations, and the privacy of information gathered. IACP will continue to research and study the application of ALPR technology in policing, and will be updating and expanding the model policy developed in 2010 to address ALPR data retention and use. ♦

### Notes:

<sup>1</sup>Narcotics and Dangerous Drugs Committee, "Support for License Plate Readers Systems," IACP Resolution 114th Annual Conference of the International Association of Chiefs of Police (New Orleans, Louisiana, 2007), <http://www.iacp.org/resolution/index.cfm?>

[fa=dis\\_public\\_view&resolution\\_id=324&CFID=9952799&CFTOKEN=30183528](#) (accessed 3/20/13).

<sup>2</sup>The IACP Law Enforcement Information Management (LEIM) Section provides law enforcement executives, IT managers, and technology specialists with a forum in which to share information; best practices; and lessons learned regarding state-of-the-art law enforcement information management, communications, and interoperability; technology standards; and information sharing, analysis, and fusion. The LEIM Section comprises approximately 1,000 chiefs and information technology professionals from agencies of all sizes, jurisdictions, and geographies. Every state in the United States is represented, as are five Canadian provinces and 18 other nations, ranging from Australia to the United Kingdom. More information regarding the IACP LEIM Section can be found at <http://www.theiacp.org/Technology/LEIMSection/tabid/437/Default.aspx> (accessed 3/20/13).

<sup>3</sup>The *Privacy Impact Assessment (PIA) Report for the Utilization of License Plate Readers* is available online at <http://www.theiacp.org/LinkClick.aspx?fileticket=Npercent2bE2wvYpercent2f1QUpercent3d&tabid=87> (accessed 3/20/13).

<sup>4</sup>Model Policies are available from the National Law Enforcement Policy Center of IACP, <http://www.theiacp.org/PoliceServices/ManagementResources/ModelPolicyList/tabid/135/Default.aspx> (accessed 3/20/13).

<sup>5</sup>David J. Roberts and Meghann Casanova, *Automated License Plate Recognition Systems: Policy and Operational Guidance for Law Enforcement* (Washington, D.C.: Department of Justice, National Institute for Justice, 2012), [http://www.theiacp.org/Portals/0/pdfs/IACP\\_ALPR\\_Policy\\_Operational\\_Guidance.pdf](http://www.theiacp.org/Portals/0/pdfs/IACP_ALPR_Policy_Operational_Guidance.pdf) (accessed 3/20/13).


Please cite as:

David J. Roberts, "Automated License Plate Recognition (ALPR) in Policing," Technology Talk, *The Police Chief* 80 (April 2013): 104–106.

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The official publication of the International Association of Chiefs of Police.

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