



Utilizing License Plate Readers for Violence Reduction

JUNE 15, 2016

Welcome





Kristie Brackens
VRN Co-Director
Bureau of Justice Assistance







Mr. Mike Sena,
Director, Northern California Regional Intelligence Center (NCIRC)/
Northern California High Intensity Drug Trafficking Area (HIDTA)

Speakers





Mike Sena Northern CA HIDTA/ NCRIC



Pam Scanlon ARJIS



Heather Whitton
Cincinnati Police
Department



Mark Greene, NIJ

Overview



- This Webinar will give an overview of the best practices in developing and executing a License Plate Reader (LPR) Program
- Developing policies and addressing privacy concerns
- Implementation of an LPR Program/Plan
- Strategies and metrics for sharing the positive perceived and real benefits of LPR
- Procurement and standards

What Is License Plate Reader (LPR) Technology?



 LPR assists law enforcement by automating previously manual processes to improve efficiency and effectiveness

LPR helps to identify vehicles, <u>not people</u>

How Does LPR Technology Work?



- Captures images of the license plates
- Transforms images into alphanumeric characters
- Compares the characters to "hot lists" of vehicles of interest to law enforcement
- Alerts when a vehicle of interest has been read and there is a match against the hot lists

LPR— Two Primary Use Cases, the Dual Benefit of LPR



- Proactive patrols/monitoring
 - Instant gratification—arrests, recoveries
 - Identify vehicles of interest in the field
- Reactive investigations
 - Canvass of crime scene
 - Where vehicles frequent may lead to "where they lay their head"
 - Complete partial/incomplete suspect vehicle descriptions
 - Patterns and long-term analytics
 - Access to reactive data, remotely, cross-jurisdictional

Efficient reactive investigations can lead to more effective, proactive monitoring





- Technology deployed without a plan will only undermine success
- To be successful with LPR technology, we must have the trust of the public and lawmakers
- In order to develop that trust, we must be forward-leaning with our education; efforts to protect privacy, civil rights, and civil liberties; and the appropriate deployment of the tools and our personnel

Establish the Business Case



- Technology deployed without a plan will only undermine success
- By first understanding and stating "why" and "how" technology is used,
 the policy and retention can be defined to meet use objectives



"Know what you are doing and why you are doing it"

—Vernon Keenan, Director, Georgia Bureau of Investigation





- Without policies that safeguard privacy, civil rights, and civil liberties, we can lose a valuable law enforcement resource
- Privacy Impact Assessments and LPR policies should be developed as soon as possible before deploying the technology

Privacy Concerns Regarding LPR



- Who has access to data?
 - Only law enforcement personnel that agree to use and are trained in the policies that protect privacy, civil rights, and civil liberties
 - No data is given or access provided to private sector
- What is it being used for and why?
 - Approved law enforcement purposes only (e.g., locate stolen vehicles, AMBER Alerts)
 - All use logged and audited
- How long is it retained?

The Big Policy Questions



- For what purposes should LPR be used?
 - Toll and traffic enforcement
 - Mobile use and situational awareness
 - Ongoing investigations
- How should LPR data be shared?
- How long should LPR data be retained?
- Is LPR data public record information?
- How can LPR policies be enforced to prevent misuse of data by LE and support personnel?





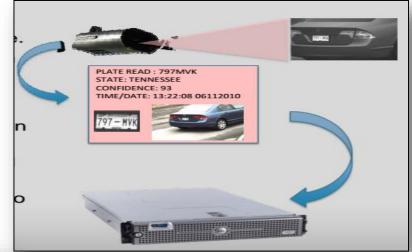


Ms. Pam Scanlon, Executive Director, Automated Regional Justice Information System (ARJIS)

Implementing LPR Technology—Fixed LPR









Implementing LPR Technology—Mobile LPR







Implementing LPR Technology—Challenges



- Deploying mobile and fixed assets
 - Concerns/challenges
 - Vehicle considerations, radio runs
 - Fixed LPRs—who is watching?
- Alert lists
 - Type of alerts
 - Source of alert data
 - Alert concerns





Metrics Critical for Success—Daily Reports



LPR Daily Counts Report

ORIID	CameraID	Last24HrsLoad	Counts	From Date	To Date	Last Update
CA0130000	34	935	137990	10/15/15	05/30/16	2016-05- 30T04:08:35.883
CA0130000	37	1782	789044	10/25/15	05/30/16	2016-05- 30T04:13:16.413
CA0130000	38	1222	521811	10/25/15	05/30/16	2016-05- 30T04:14:18.543
CA0130000	41	261	85367	10/23/15	05/30/16	2016-05- 30T03:56:26.363
CA0130000	80	0	130592	10/21/15	11/30/15	2015-12- 20T08:27:43.263
CA0370000	193	680	207390	10/07/15	05/30/16	2016-05- 30T03:58:39.883
CA0370000	210	95	134883	10/22/15	05/30/16	2016-05- 30T03:05:01.037
CA0370000	65	1394	2110703	10/25/15	05/29/16	2016-05- 29T21:46:42.690





- LPR monitored for performance, reliability, and functionality
- Staff provide system-generated management reports
 - Agency use
 - Number of license plate reads on file
 - Technical issues identified during the reporting period

Agency	Camera Name	LPR Reads This Month	# of Days Reads Sent	Number of Alerts
Sample	One	31080	27	13
Sample	Two	12841	17	10
Sample	Three	21025	17	12

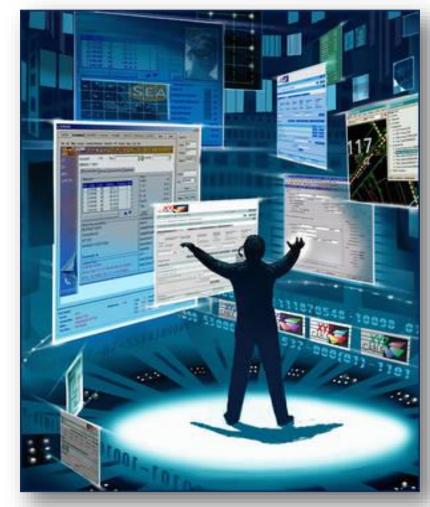
Alert List Name	Number of Alerts
STOLEN VEHICLES	15
LOST OR STOLEN PLATES	20
Total	35

Duration: 2014/12/02 - 2015/01/01

ARJIS Regional LPR System



- Connects 13 separate efforts—accessible by all 82
 ARJIS members—20+ million records
- Strong governance and oversight—policies and privacy assessments
- Accessed via SRFERS (State, Regional, Federal Enterprise Retrieval System) and mapping dashboard
- Sends alert to investigator when target vehicle plate is captured—Officer Notification System (ONS)
- Checks LPR from border
 - National Insurance Crime Bureau (NICB) and Nlets—
 The International Justice and Public Safety Network



Developing Unified Interfaces for LPR



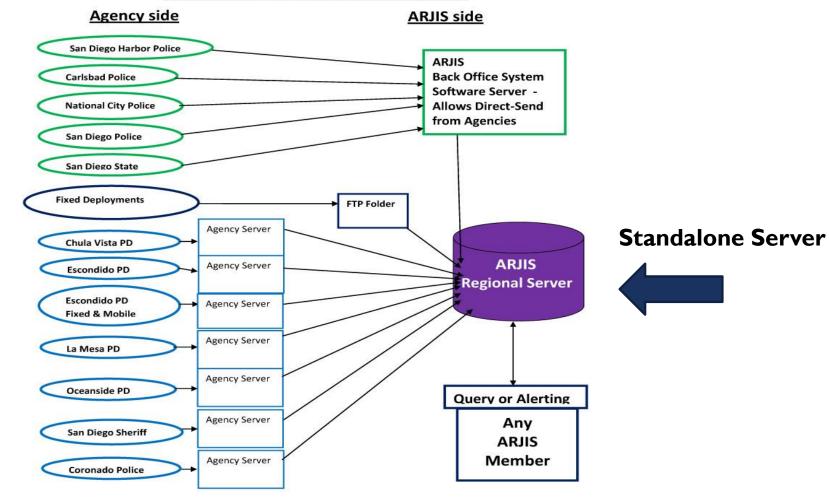
- One system to query all law enforcement LPR data
- Available to all law enforcement with a need and right to know
- Search for full or partial plates
- Search by geographic region
- Create e-mail or SMS alerts for future hits





Architecture of Regional LPR System

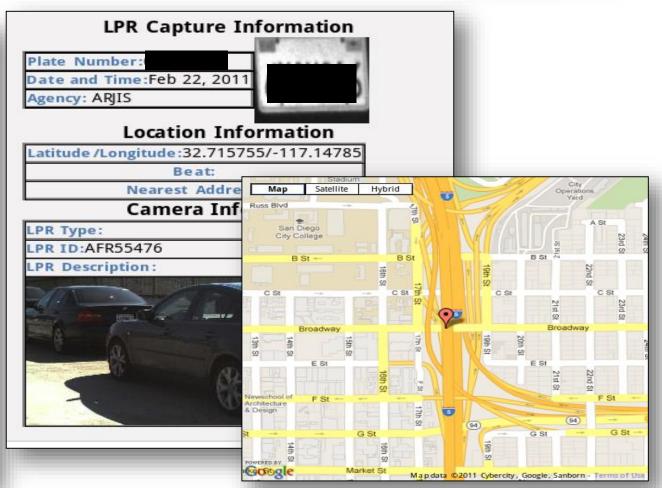
Standard Interfaces



ARJIS Query Tool for LPR Reads



	Ve	hicle Res	ult		
License	Date	Agency	Type 🕈	LPR Image	Action
6MAV016		NLETS- NVLS	LPR		View
6MAV016		NLETS- NICB	LPR		View
6MAV016	6/4/11 7:56 PM	CVPD	LPR	6	View
6MAV016		CLETS	REGISTRATION		View
6MAV016	2/22/11 10:55 AM	ARJIS	LPR	6	View
6MAV016		NLETS- NICB	LPR		View



Monthly Regional Metrics



			LPR Status Jan	- March 20	016							
				Alerts			2					
	Agency	Camera	Reads	Lost Or Stolen plate	Stolen Vehicle	Felony Wants	Custom	Manual Reports	Manual Intel	100 House at 60 at 60	BP Hotlist	Total
	#1	3	189,100	40	27			9				76
	#2	2	25,889	4	7							11
	#2	1	127,476	36	37			1				74
	#4	24	752,299	177	171	7		3				358
	#5	2	109,455	26	14							40
	#6	3	273,226	25	14							39
	#7	3	109,034	19	9							28
	#8	8	11,315,314		143							143
	#9	4	664,450									
	#10	1	4,593									
	#11	4	871,046	71	46	2						119
	#12	20	1,712,038	163	146	1	12	20	1	6	2	351
otal		75	16,153,920	561	614	10	12	33	1	6	2	1239

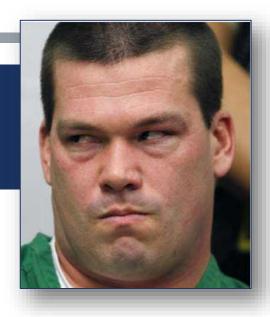
Increase in Percentage of Recovery to Stolen



Year	Stolen	Recovered	Percent Recovered
2009	15,260	8,632	57%
2010	14,054	9,375	67%
2011	12,438	8,784	71%
2012	13,257	10,814	82%
2013	12,277	10,531	86%
2014	10,146	8,329	82%



Success Story—High-Profile Homicide



• Amber Dubois Homicide: John Gardner was arrested for the murder of 17-year-old Chelsea King in February 2010 as she was jogging through a park. Follow-up investigation used LPR to show he used the same car to kidnap, rape, and murder 14-year-old Amber Dubois more than one year before. The LPR data proved invaluable in linking Gardner to the Dubois case. He was convicted of the double rape and murder

More Successes



- District Attorney Fraud Case: A fraud detective working complex cases involving automobiles reported that the use of LPR information obtained through SRFERS has been instrumental in closing several large fraud cases. He noted that relevant data was often 9 to 12 months old
- Carlsbad Homicide: Investigators used LPR data to place the victim's vehicle on the roadway after the time of her death. This helped detectives confirm that the suspect had used the victim's own vehicle to transport her body away from her home









Ms. Heather Whitton, License Plate Recognition Program Manager, Cincinnati Police Department

Getting the Business Case



Operational Value and Investigative Value

Use metrics to lead you to your best sources

Poll Top Users Regularly How Often, For What, Feedback

What gets recognized, gets repeated



Getting the Business Case— Typical Operational Value



 Decrease in reportable crimes, including burglary, through the use of LPR as a tool to develop investigative leads and criminal intelligence

 Increase in vehicle recovery, especially "rolling recovery"—leading to arrests or additional crime reduction

Getting the Business Case—Investigative Value

					1.45
Detection Browsing	User	060616	06-06-16 18:54:55	pivot	
Detection Browsing	User	060616	06-06-16 18:52:00	pivot	
Detection Browsing	User	060616	06-06-16 18:51:45	pivot	
Detection Browsing	User	060616	06-06-16 18:51:17	pivot	
License Plate Query Mobile	User	i1601	06-06-16 17:35:22	drug investigation	
Stakeout Browsing	User	060616	06-06-16 16:47:53	AGG ROBB/SHOOTING INV	
Detection Browsing	User	169013022	06-06-16 16:25:21	Burglary investigation	
Detection Browsing	User	169013022	06-06-16 16:15:53	Burglary investigation	
Detection Browsing	User	169013022	06-06-16 16:13:41	Burglary investigation.	
Hot Plate Upload Mobile	User	hotel	06-06-16 15:40:40	interdiction	
icense Plate Query Mobile	User	hotel	06-06-16 15:11:09	interdiction	
Detection Browsing	User	11601	06-06-16 14:09:08	Narcotics invest	
Detection Browsing	User	11601	06-06-16 14:08:35	Narcotics invest	
Detection Browsing	User	N16-09	06-06-16 13:49:20	Interstate heroin trafficking	
Detection Browsing	User	16007738	06-06-16 13:44:16	stolen plate	
icense Plate Query Mobile	User	i1601	06-06-16 13:36:23	interdiction	
Detection Browsing	User	2016-OPD-1041	06-06-16 13:33:47	Stolen license plate	-
icense Plate Query Mobile	User	i1601	06-06-16 13:33:16	interdiction	-
icense Plate Query Mobile	User	i16-01	06-06-16 13:31:34	narcotics investigation	-
Detection Browsing	User	hotf-62	06-06-16 13:22:43	investigation of target selling heroin	
Hot-List Browsing	Agency Manager	auditing	06-06-16 12:45:07	auditing	
Detection Browsing	User	16-7915	06-06-16 12:32:49	theft of vehicle and trailer	
Detection Browsing	User	16-7915	06-06-16 12:31:49	theft of vehicle and trailer	
Detection Browsing	User	16-7915	06-06-16 12:30:03	theft of vehicle and trailer	
Detection Browsing	User	16-7915	06-06-16 12:29:48	theft of vehicle and trailer	
Detection Browsing	User	16-7915	06-06-16 12:29:24	theft of vehicle and trailer	
Detection Browsing	User	165008396	06-06-16 10:17:15	id	
Detection Browsing	User	16H31	06-03-16 21:57:05	Suspect Car to loc suspect	
Detection Browsing	User	16H31	06-03-16 21:56:17	Suspect Car to loc suspect	
icense Plate Query Mobile	User	rape2016	06-03-16 20:54:36	rape2016 case wcpd	
Detection Browsing	User	16006857	06-03-16 18:30:34	stolen vehicle	
Detection Browsing	User	2016-OPD-0870	06-03-16 17:52:03	Burglary investigation	
Detection Browsing	User	2016-OPD-0870	06-03-16 17:44:38	Burglary investigation	-
	User	2016-OPD-0870	06-03-16 17:44:16		
Detection Browsing				Burglary investigation	-
Detection Browsing	User	2016-OPD-0870	06-03-16 17:22:06	Burglary investigation	-
Detection Browsing	User	drug inv	06-03-16 15:45:49	drug inv	
Hit-List Browsing	User	audting	06-03-16 15:25:27	auditing	
Detection Browsing	User	2016-OPD-1041	06-03-16 15:21:58	Stolen license plate	
Detection Browsing	User	Rape Case	06-03-16 14:59:34	Westchester Rape case	
Detection Browsing	User	060316	06-03-16 14:31:32	wanted felon	
Hit-List Browsing	User	audting	06-03-16 14:04:07	auditing	
Hit-List Browsing	User	audting	06-03-16 14:01:51	auditing	
Detection Browsing	User	16-1914	06-03-16 13:37:27	Sexual assault	
Detection Browsing	User	16-1914	06-03-16 11:00:20	sex assault	
Detection Browsing	User	homicide	06-03-16 04:50:53	homicide	
Detection Browsing	User	homicide	06-03-16 04:36:43	homicide	
Detection Browsing	User	16-1914	06-03-16 01:14:48	sexual assault	
Detection Browsing	User	16-1914	06-02-16 23:24:06	Sexual assault	
Stakeout Browsing	User	Abduction	06-02-16 20:30:28	Abduction	1
	User	Abduction	06-02-16 20:30:28	Abduction	
Stakeout Browsing					
Stakeout Browsing	User	Abduction	06-02-16 20:18:28	Abduction	
Stakeout Browsing	User	Abduction	06-02-16 20:09:53	Abduction	
Detection Browsing	User	N16-13	06-02-16 19:19:17	Drug Investigation	
Detection Browsing	User	N16-13	06-02-16 19:18:43	Drug Investigation	
Stakeout Browsing	User	Rape Case	06-02-16 18:29:00	Rape Case	
Stakeout Browsing	User	Rape Case	06-02-16 18:28:44	Rape Case	
Stakeout Browsing	User	Rape Case	06-02-16 18:26:12	Rape Case	
Detection Browsing	User	N16-13	06-02-16 17:58:37	Drug Investigation	
Detection Browsing	User	165008458	06-02-16 17:09:06	hit skip inv.	
Detection Browsing	User	165008458	06-02-16 17:04:35	hit skip inv.	
Detection Browsing	User	16-123123	06-02-16 16:39:29	Stolen merchandise	
Detection Browsing	User	160000	06-02-16 16:27:12	locate truck	
Detection Browsing	User	160000	06-02-16 16:26:57	locate truck	
Detection Browsing	User	160000	06-02-16 16:09:09	locate truck	
	Sec. 5355	15.5 (5.5 (5.0))	The state of the s		

The True Value of LPR: Locations to Convictions



From: Blackwell, Carl

Sent: Friday, September 19, 2014 12:54 PM

To: #CIN.POLICE.All

Subject: INVESTIGATION

ON 9/17/14 @ 0115 A SHOOTING OCCURRED AT 7142 READING RD, BEHIND GOOD YEAR TIRE CENTER. THE SHOOTER'S FIRST NAME IS ROBERT, UNKNOWN LAST NAME. HE IS A PUERTO RICAN AND BLACK WITH A LIGHT COMPLEXION, LONG CURLY HAIR DOWN HIS NECK. HE IS BETWEEN 40-50 YEARS OLD. HE FREQUENTS THE PARK AT 13TH AND SYCAMORE. HE HAS A KNOWN ASSOCIATE NAMED MARCHELLO CLARK OR KELOW. HE WAS LAST SCENE OPERATING A BLACK NISSAN ALTIMA. ACCORDING TO WITNESSES, THE SHOOTER HAS AN APARTMENT IN DISTRICT I ON YORK ST BETWEEN FREEMAN AND COLERAIN AVE. IF LOCATED PLEASE STOP, FIR AND CONTACT DET. BLACKWELL CONSIDER THE PERSON ARMED AND DANGEROUS.

The True Value of LPR: Identification, Photo Evidence, Location



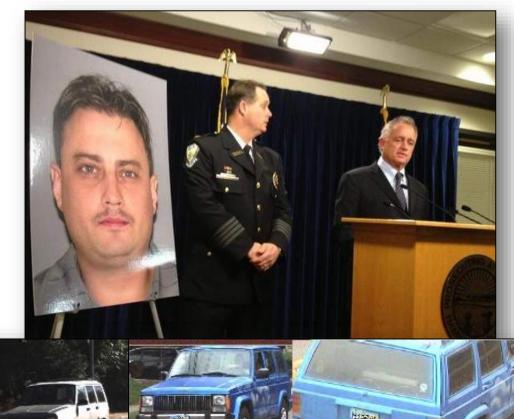
Serial Rapist

Suspect was identified and extensive investigation took place over a few months

LPR lead map led investigators to vehicle to place GPS tracker

Photos show suspect attempted to disguise vehicle

Arrested January 2013



Nov 2012

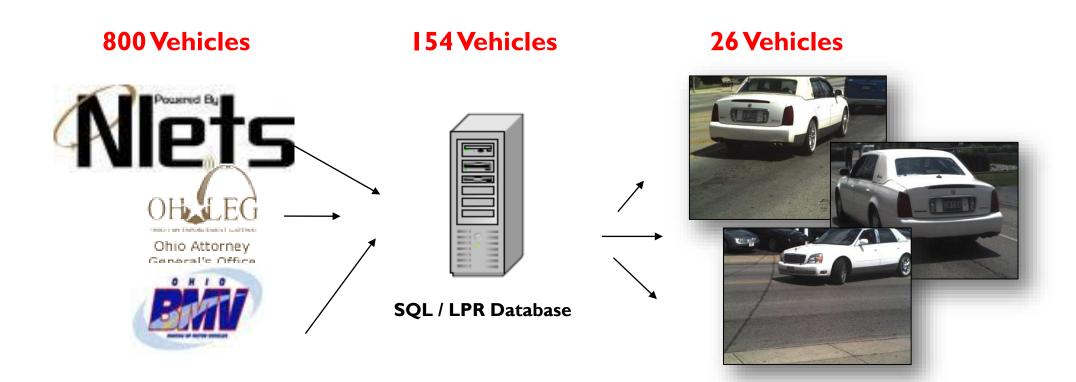
Sept 2012





The use of LPR information can lessen the exposure of individuals' personal data

Reduced PII Access by 96.75%



THE TRUE VALUE OF LPR: CURRENT AND HISTORICAL DATA





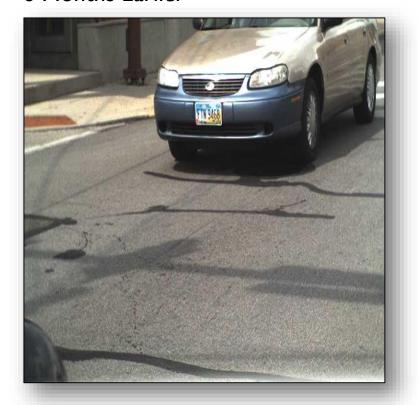
The True Value of LPR: Current and Historical Data



6/27/2013 7:33:46 PM



6 Months Earlier



The True Value of LPR: Success Power of the Photo





WEST CHESTER POLICE DEPARTMENT CRIMINAL INTELLIGENCE REPORT

6/2/16 IB-16-011



BOLO: Sexual Assault Suspect

WANTED

Summary: CAMRON VICTOR WOHL has warrants entered on him for Agg. Robbery/Burglary, Kidnapping, and Rape with a nationwide pickup radius reference the below captioned sexual assault. During the early morning hours of 6/3/16, WOLL also assaulted his father. Coorse Wohl at his father residence in Correll, Kentucky and stella his Charge pickup.



CAMRON VICTOR WOHL M/W/602/200-225/BRO/BLU



2004 silver Chevrolet 2500 Duramax P/U KY 595MFS





EW AT 11PM
7 YEAR OLD WOMAN CARJACKED IN KENTON COUNTY
OLICE RELEASE 911 CALL FOR HELP

OSTED: 12:35 AM, Mar 4, 2016

"Notice the missing hubcap and the dent in the back"



THE TRUE VALUE OF LPR: SUCCESS POWER OF THE PHOTO



Man shot, 2 women beaten in Union Township home invasion

BY: Tom McKee
POSTED: 10:58 AM, Apr 25, 2014
UPDATED: 7:43 PM, Apr 25, 2014

GCX 6546 4/25/2014 10:26:59 AM

GCX6546









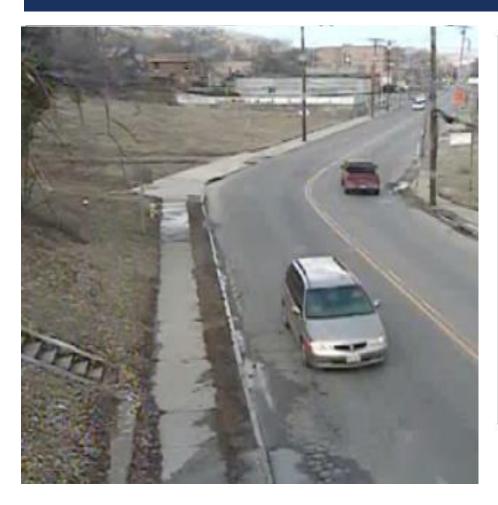


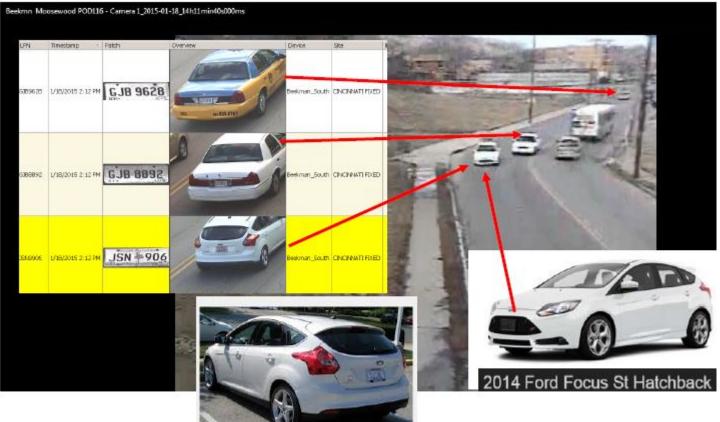
A Union Township homeowner found a teenage girl covered in blood at her front door after a home invasion shooting on Tealtown Road.



THE TRUE VALUE OF LPR: SUCCESS VIDEO CAMERAS + LPR







Share the Benefits – In the Media





BREAKING OVERNIGHT: Cincinnati Police were taken on a WILD chase after a stolen car ended up in someone's yard. Canines were used to track down the suspects.

But HOW did police know the car was even stolen? You might be surprised that in many parts of the city, there are license plate readers. We're talking about these cameras, how they work and where they're located on Good Morning Tri-State.



Los Angeles Times | NATION

How technology helped crack the Kansas City highway shooter case



Technology helped find Virginia killer



License plate recognition scanners on Tri-State police cruisers help stop crimes before they happen

BY: Brendan Keefe, Maxim Alter POSTED: 8:55 PM, Nov 11, 2013 UPDATED: 4:14 PM, Nov 12, 2013

An automated LPR -- or license plate recognition -- camera attached to a Fort Thomas police cruiser had already detected and recorded the man's car prowling different schools over several days.

Because of this technology, police say they were able to arrest the man before a more serious crime was committed.



Like - Reply - 10 4 - 10 nrs

Megan Shockley Say what you want these cameras got my car back to me after it was stolen from a kid in Mt healthy... less than 24 hrs later my car was returned to me by cincinnati police I can not thank them enough, it is my only means of transportation and a kid literally stripped my life and my kids from us by stealing my car as well as personal belongings.

Thank you Cincinnati P.D.

Car stolen, tracked with technology BENGUIGET TO SOLVE CHARLES IN CINCINNATI



CINCINNATI — A suspect believed to be involved in an armed robbery in College Hill is now behind bars.

RELATED

rally planned...

Clermont

- Flying Pig runner hopes
- to raise skin...

 Stand With Baltimore'
- Suspect named in OTR
- 2 hurt in head-on crash in

 Police said shots were fired during an ATM robbery on Cedar Avenue Sunday.

Investigators came up with a description of the suspect's vehicle using a partial license plate number.

A real-time crime camera then located the vehicle police were looking for. Police pulled the car over near Beekman and Dreman streets.







Mr. Mark Greene,
Director, Policy and Standards Division
Office of Science and Technology
National Institute of Justice (NIJ)

Keys to Acceptance of an LPR Program



- HAVE a policy
- USE the policy (abide by it and audit)
- HAVE and USE metrics
- Get the word out about the benefits of LPR use by law enforcement
- Engage before there is a problem

Questions

Go to www.IACP.org/ALPR



Question-and-Answer Session

MODERATED BY: MIKE SENA

Resources



- International Association of Chiefs of Police Automated License Plate Recognition (ALPR) http://www.theiacp.org/alpr
- The Northern California Regional Intelligence Center's Automated License Plate Reader Policy: https://ncric.org//html/NCRIC%20ALPR%20POLICY.pdf
- Automated Regional Justice Information System (ARJIS) Acceptable Use Policy for the Regional License Plate Reader System:
 http://www.arjis.org/RegionalPolicies/ARJIS%20LPR%20AUP%20%20Approved%20-%20Rev150213.pdf
- Maryland Coordination and Analysis Center's License Plate Reader Standard Operating Procedure: http://www.mcac.maryland.gov/resources/LPR/LPR-SOP.html
- Los Angeles Sheriff's Department's ALPR Privacy Policy: http://shq.lasdnews.net/content/uoa/EPC/ALPRPrivacyPolicy.pdf
- George Mason University Center for Evidence-Based Crime Policy http://cebcp.org/lpr/





Utilizing License Plate Readers for Violence Reduction

Closing Remarks: Kristie Brackens

LICENSE PLATE READERS: A PRIMER

AVAILABLE ON THE VRN WEBSITE

HTTPS://WWW.VRNETWORK.ORG/



THANKYOU