SPAWAR Atlantic – Advanced Law Enforcement Technology Branch

Practical and Tactical License Plate Reader Programs: Managing Officers, Data, and Systems Effectively in San Diego and Cincinnati

Session Moderator

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Presenters

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License Plate Readers (LPR)
Making the Most of a Powerful Tool

KIDNAPPED CHILD
WHITE CHEVY P/U
LIC TX 2JV L61

What LPR Can Do

➤ Today's LPR can read and check the plate of a vehicle in all types of lighting and at combined closure speeds of 150 mph.

➤ Although LPR is often obtained for stolen vehicle efforts, checks can be made against any data base, including customized (e.g. local sex offenders).

  ➤ Note: The check is not against a "live" DB.

➤ Once read, plate information can be stored for future review and query.

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Why Use LPR?

Force Multiplier
- Officers can focus attention on other events occurring around them.
- Large amount of plates/vehicles can be checked automatically.
- Up to 5000 plates per shift vs. 100 to 150 max by standard officer query methods. >

Value of Collected Data

- ➤ All reads provide:
  - Photo
  - Time/Date
  - GPS location
- ➤ Can be used numerous ways:
  - Investigations
  - Locating suspects
  - Homeland Security
- ➤ <u>Which vehicle</u> was <u>Where</u> <u>When</u>   >

Escondido, CA PD
Hit & Run Case

➤ Pedestrian Struck and Killed by Car

  ➤ Witness Information:

    ➤ Gray Ford Taurus

    ➤ Partial License Plate "5_ _ _ 611"

➤ Other efforts to identify or locate a suspect failed and the partial license plate was entered into LPR database. ›
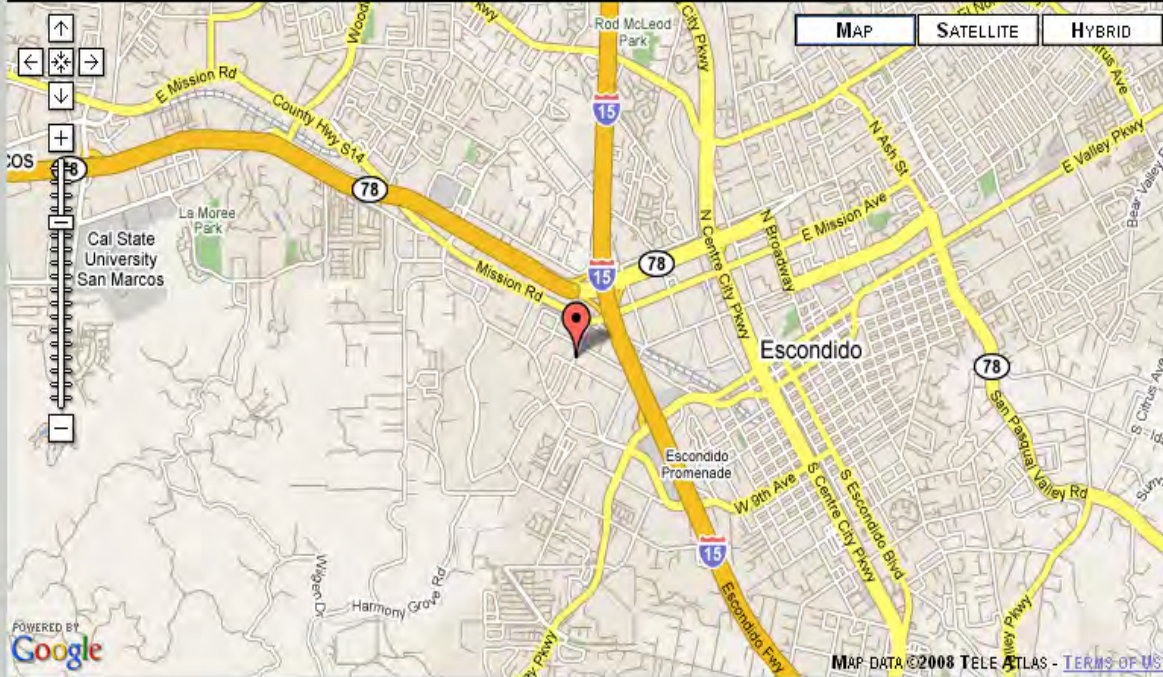
> **Gray Ford Taurus**

> **Partial Plate of 5___611**

> **Found LPR capture from <u>three months prior</u> to accident.**

> **Area checked, car located, suspect arrested.**

Data <u>Sharing</u> is Key
Make it Happen!

➢ Agency efforts are underway but without coordination, value is limited.   Result: Info silos.

➢ Coordinate efforts – <u>link</u> agency reps early & often.

➢ Coordinating agency efforts and sharing data can result in extensive benefits:

  ➢ More effective alerts and analysis of information.

  ➢ Economy of scale regarding purchases.

  ➢ Lessons learned applicable to others.

  ➢ Possible shared infrastructure (e.g. servers).   >

LPR Use in San Diego Region

Mobile LPRs:
- CHP
- Chula Vista
- El Cajon
- Escondido
- La Mesa
- Oceanside
- San Diego
- San Diego Sheriff

Portable Unit:
- *USBP*

Fixed Installs:
- *CHP*
- *Customs Border Protection*
- *SD Sheriff*

Each agency responsible for retention and storage of data. <u>Minimal</u> sharing of information. Identified solution: Use a Regional Server.   >

Benefits of Regional Server

➢ Support agencies by providing data storage.

➢ Facilitate sharing of data.

➢ Permit query by non-LPR agencies.

➢ Provide storage option for new LPR agencies.

➢ Support regional alerting function.

➢ Support adoption of Regional Hot List.

➢ Establish infrastructure on which to build.   >

Regional Server Effort

➢ As a result of a stalled project, the region had a server but no software to handle the data or sharing.

➢ Through partnership with NIJ, Regional Server made operational by using Leopard (LPR Data), a software application developed by SPAWAR.

➢ Intent: Multi-agency and multi-vendor data flowing to centralized Regional Server.

➢ Status:

➢ Operational with three agencies. Other agencies will be added and server expanded.

➢ Multiple vendors: Software handles Elsag, NDI, PIPS, Platescan w/Autovu in progress.

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San Diego LPR Data Sharing

LPR Agencies
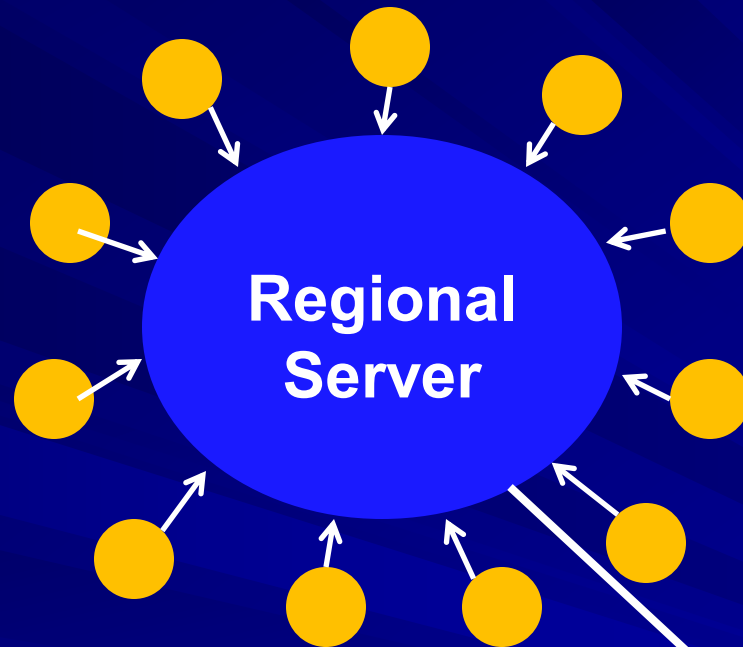
Regional Server

Agencies may hold and/or transfer LPR data to server. Multi-vendor capable.

San Diego Region

Query by any ARJIS Member >

Los Angeles LPR Data Sharing
A Different Approach

25+ LPR Agencies

Web Query
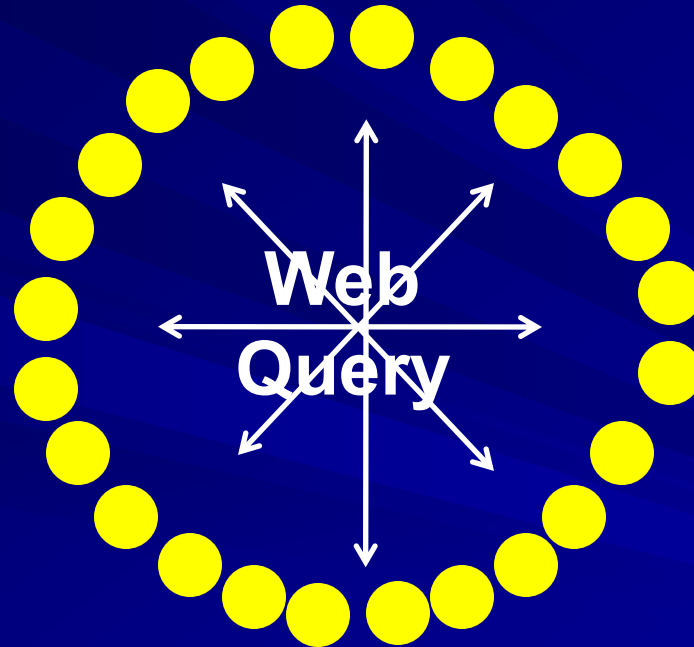
Los Angeles Region

All agencies hold own data, sharing made possible by use of single vendor.

>

Datasharing: Los Angeles and San Diego

LPR Agencies

LPR Agencies

Web Query

Regional Server

Los Angeles Region

San Diego Region

Key: Use a system of systems that rely on a data standard. >

Query by any ARJIS Member
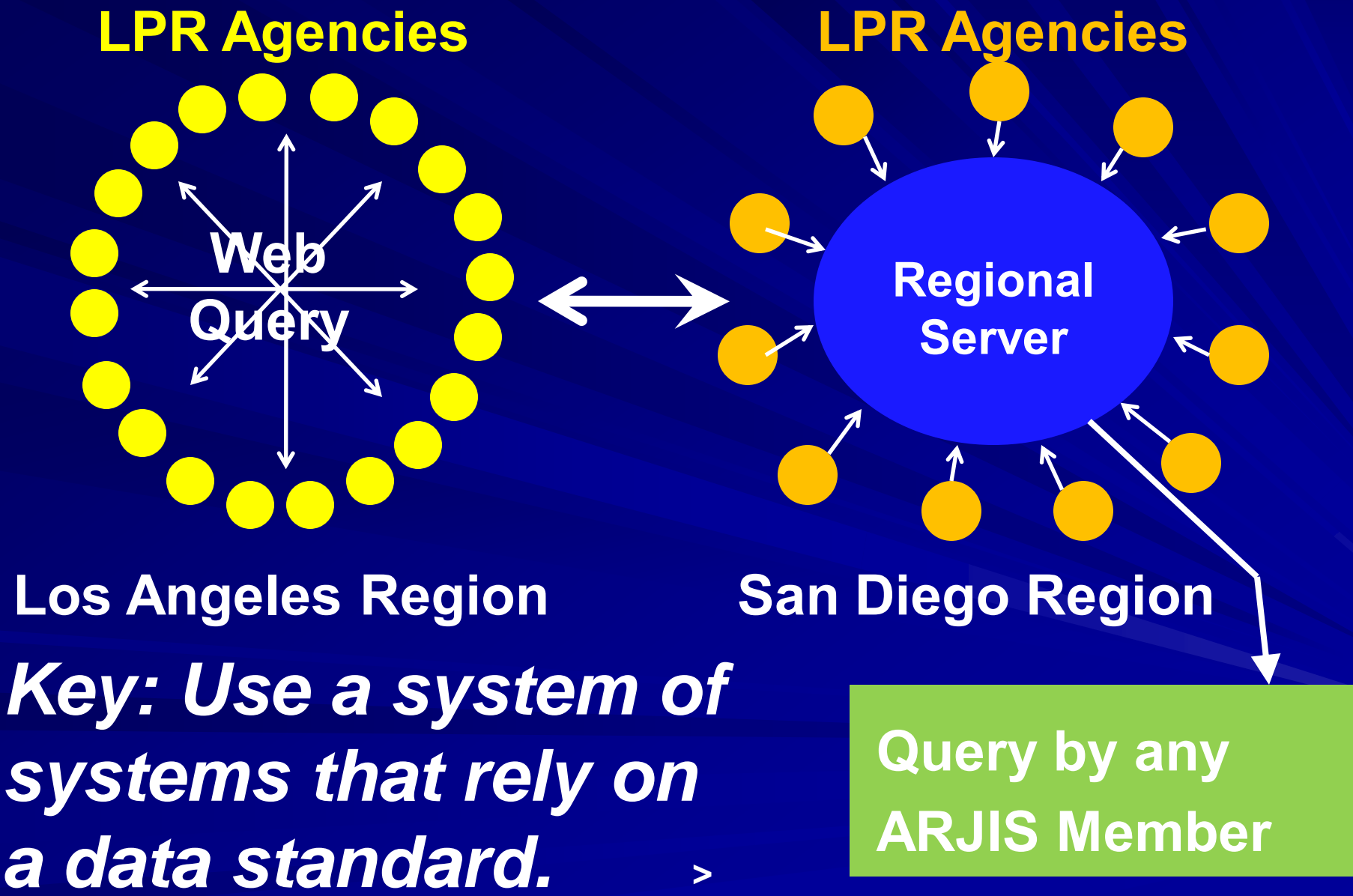
National Sharing – Roadmap

- Develop regional sharing capability.

- As regions develop across the country, begin to link sharing/query capability.

- Utilize a trusted broker, such as NLETS to serve as a "pointer" system.

- Query could be conducted by investigator in one state with indication of potential data in multiple regions/states.

- In the interim: Establish and utilize email groups. Can be a very powerful tool.

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LPRS – The Myths

- My vendor is best.
- LPRs are primarily for finding stolen cars.
- LPRs take the human element out of policing.
- LPRs target people unfairly.
- LPRs are too expensive for small agencies.
- Accuracy rate is THIS BIG!
- My cameras read all 50 states.
- HOT lists are really hot.
- Got a mobile computer, just add a camera.
- Bottom line – Do your homework!

LPR Tips

➢ Use Wildcards frequently   >

Florida Rape Series

➢ More than 30 rapes over 3 years.

➢ Suspect rendered victims unconscious and there was no suspect vehicle info.

➢ Finally, a break: A victim provided four characters of a license plate.

➢ Even though victim got one character wrong, use of wildcard function identified a suspect vehicle within a few minutes.

➢ Surveillance established and suspect arrested as he targeted another victim.   >

LPR Tips

➤ Use Wildcards frequently

➤ Remember Victimology 101 – Where was V?

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Jefferson Parish, Louisiana Robbery Homicide

- Owner of ATM business targeted and killed.
- Suspect Vehicle description but no plate info.
- Check of Victim's plate showed multiple LPR captures.
- Reviewed vehicles that came after Victim plate and identified a suspect vehicle.
- Plate obtained, suspect ID'd and arrested.
- LPR not only identified suspect but provided proof that the victim had been targeted.

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LPR Tips

➢ Use Wildcards frequently.

➢ Remember Victimology 101 – Where was V?

➢ Hot list instructions should be clear – TRAIN!

➢ Hot list must be maintained and updated.

➢ Share/Share/Share to be effective.

➢ Target hot spots relentlessly – before & after.

➢ Move to wireless update/download.

➢ Numbers count – keep LPR in the field.

➢ Registration enforcement – new perspective.

➢ Car wash caution.   >

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Success in License Plate Recognition Technology

Cincinnati Police - Creating a Regional Approach

SOSINK

Regional Project Goal

"<u>Gathering investigative information</u> by creating a REGIONAL network of FIXED LPR cameras that capture and track HIGH INTEREST vehicles and MOBILE LPR UNITS that capture and track regional criminal activity resulting in significant apprehensions while increasing <u>information sharing</u> by building a powerful REGIONAL database of vehicles available to all SOSINK agencies for investigative purposes."

SOSINK

Regional Agency Cooperation

- ## 3 States, 10 Counties
  (Hamilton, Butler, Warren, Clermont, Clinton, Highland, Boone, Campbell, Kenton, Dearborn)

- ## Agency Purchased Equipment

- ## SOSINK Region 6 Grant funds (UASI, SHSGP)
  - **3.9+ Million dollars!**
  - Mobile, portable, and fixed systems
  - Regional Database available to all agencies
  - LPR Project Team, support and guidance
  - Training opportunities

SOSINK

Data from Multiple Agencies

Cincinnati Police
Wyoming PD
Sharonville
Mt Healthy
Warren County Drug Task
   Force
West Chester PD
Monroe
Fairfield
Hamilton PD
Oxford
Trenton
Miami Twp
Union Twp
Wilmington
Clinton Co Sheriff's Office
Butler CO Sheriff's Office

Green Twp PD
Madeira PD
Montgomery (City)
Norwood PD
Hamilton Co Sheriff's Office
Springdale PD
Springfield Twp PD
University of Cincinnati PD
Hillsboro PD
Mason (City)
Franklin
Blue Ash
Colerain Twp PD
Delhi PD
Fairfax
Forest Park PD
Middletown*

West Chester
Lebanon
Warren Co Sheriff's
Office
Springboro
Kenton County Sheriff *
Covington PD *
Erlanger *
Newport *
Ft Thomas *
Boone CO Sheriff *
Florence *
Dearborn Co Sheriff *
Ft Wright
Independence

* Will be online in 3-6 months

SOSINK

Regional Project Considerations

- **Overall Project Plan;** Overview of the current plan and review for any changes. Determine where to allocate new funds and how to distribute new units?

- **Ad Hoc Hotlist;** What is the policy and procedure for agencies creating their own hotlists for the LPR systems?

- **Sharing Hotlist;** Determine feasibility of sharing local and state hotlists amongst all agencies

- **Reporting/Analysis**; Discuss what types of reports and data analysis would be valuable to agencies.

- **Database expansion;** Determine the process for allowing agencies to join the regional database to add data and those agencies that want to have access to query the data.

- **Master Policy;** Create a regional policy /procedure document that agencies can use as a model.

- **Sustainment;** Develop a contingency plan for sustaining the regional database in the event that grant funding diminishes or is eliminated.

SOSINK

Hotlist Configurations

Hot lists can be set by vehicle or fixed camera

Fixed - **Tracking high priority vehicles**

- Terrorist Watch Alerts
- Amber Alerts
- Drug Trafficking
- Recently Occurring Crimes Crimes (bank robberies, homicides, etc)

Mobile – **Tracking regional vehicles involved in crime**

- NCIC
- State Lists
- Regional wanted vehicles
- Warrants, Stolen, Delinquent, etc
- Suspended, NDL
- Expired Tags
- Parking Scofflaws
- Plates can be added for immediate updates in the vehicle

Hotlist Concerns/Issues

- Manual entries into the database
- Sharing hotlists, how to confirm
- **VERIFY. VERIFY, VERIFY!!!**

VERIFY!!

- State

- Correct Read

- Hit Still Valid

SOSINK

Mobile Deployment Considerations

- Patrol Vehicle vs. Traffic or Specialized Unit (how to set and align cameras)

- Radio Runs

- Take Home Vehicles

- Repetitive Beats, change it up

- Officer Training – in office and in the field

DO NOT DEPLOY WITHOUT AGENCY TRAINING, PROJECT PLAN, POLICY AND PROCEDURE

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Investigative Power

Vehicle Verification

- Confirm vehicle descriptions provided by witnesses
- Identify unique features of vehicle (paint, stickers, etc.)
- Determine vehicle condition (damage, operable, etc.)
- Verify make, model, color
- Compare Hot Sheets
- Hit Skip Unit, Traffic Unit, Impound

Vehicle Photos

- System generated PDF photo line up – able to email/print
- In some cases the operator can be seen and identified
- Photos can be enhanced if needed
- Used in media releases and investigative flyers
(actual photo vs. stock photo)
- Full scene color photos – don't let the vendors take away valuable information!!!
- Photos on main query screen – don't let the vendors take away efficiency!

PRINT and DISTRIBUTE!!

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Strategic Uses

- Run vehicles at high crime locations (bars, clubs, etc)

- Covert investigations

- Park mobile systems and wait

- Place ahead of OVI check points

- Patrol Critical Infrastructure

- Patrol major events (festivals, parades, dignitary visits)
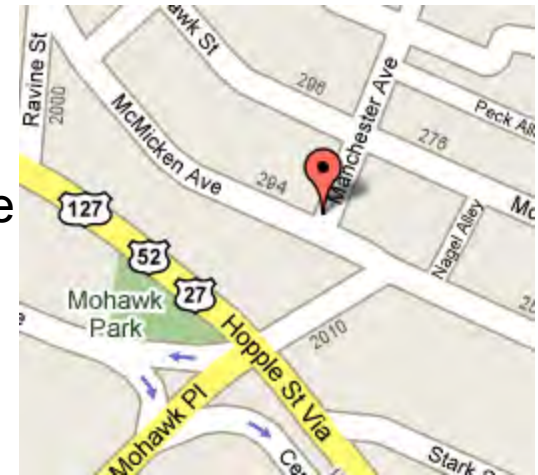
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Homicide Investigation

Vehicle was read at

6:23 PM

Vehicle belonged to a homicide victim who was discovered murdered in his apartment at

5:00 p.m.

<u>A copy of the readout was printed and distributed at all roll call</u>. The vehicle was spotted, officers responded, two suspects were taken into custody, and the vehicle was towed to the impound lot.

The vehicle and two detained individuals yielded information leading to the arrest of the suspect who was subsequently charged with 11 counts and convicted.

The LPR system saved the department significant investigative resources and man hours; also it made a solid case.
Consider the value and dollars saved!!

SOSINK

Thank You!

Questions

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Presentations will be posted in the new LPR Portal by June 10, 2010:
http://gemini.gmu.edu/cebcp/