ELSAG North America Law Enforcement Systems

- A U.S. Based Division of Finmeccanica
  - $38MM investment in Law Enforcement Technology R&D and American expansion
  - Headquartered in Brewster, NY U.S.A.
  - All manufacturing in Greensboro, NC U.S.A.
- Years of experience and rapid market adoption
  - First introduced in Italy 12 yrs. ago/expanded throughout Europe
  - Introduced to US market nearly 4 years ago with Ohio State Highway Patrol
  - Over 520 U.S. Customers today
- Market Leadership
  - Focus on Service Excellence and 24/7 Customer Support
  - Innovation leadership in the LPR market
  - Depth and Breadth of Mission
  - Attention to Details

Over 8000 Stolen Vehicles and 5500 Arrests and counting in the U.S. with Elsag LPR Equipment
## ELSAG US Deployments

<table>
<thead>
<tr>
<th>Agency</th>
<th>City, State</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYPD</td>
<td>Washington, DC</td>
<td>Detroit, MI</td>
</tr>
<tr>
<td>100% NY State</td>
<td>Baltimore, MD</td>
<td>Cleveland, OH</td>
</tr>
<tr>
<td>Secret Service</td>
<td>Los Angeles, CA</td>
<td>Columbus, OH</td>
</tr>
<tr>
<td>DEA</td>
<td>Orange County, CA</td>
<td>Tampa, FL</td>
</tr>
<tr>
<td>HIDTA</td>
<td>Phoenix, AZ</td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>Tennessee Highway Patrol</td>
<td>Tucson, AZ</td>
<td>Little Rock, AR</td>
</tr>
<tr>
<td>New York State Police</td>
<td>Miami, FL</td>
<td>Tulare County, CA</td>
</tr>
<tr>
<td>Arizona Dept. of Public Safety</td>
<td>Ft. Lauderdale, FL</td>
<td>Richmond, VA</td>
</tr>
<tr>
<td>Maryland State Police</td>
<td>Jacksonville, FL</td>
<td>Roanoke, VA</td>
</tr>
<tr>
<td>Virginia State Police</td>
<td>Baton Rouge, LA</td>
<td>Arlington, VA</td>
</tr>
<tr>
<td>Kentucky State Police</td>
<td>Louisville, KY</td>
<td>Alexandria, VA</td>
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<tr>
<td>Pennsylvania State Police</td>
<td>Gulfport, MS</td>
<td>Hampton, VA</td>
</tr>
<tr>
<td>Georgia State Patrol</td>
<td>Herndon, VA</td>
<td>Norfolk, VA</td>
</tr>
<tr>
<td>Colorado State Police</td>
<td>Aurora, CO</td>
<td>Newport News, VA</td>
</tr>
<tr>
<td>Ohio State Highway Patrol</td>
<td>Fairfax, VA</td>
<td>Chesterfield, VA</td>
</tr>
<tr>
<td>Nebraska State Police</td>
<td>Sioux Falls, SD</td>
<td>Myrtle Beach, SC</td>
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<tr>
<td>Ft. Lee Army Base</td>
<td>New Haven, CT</td>
<td>Georgetown, SC</td>
</tr>
<tr>
<td>Denver, CO</td>
<td>Pinellas County, FL</td>
<td>Dekalb County, GA</td>
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<tr>
<td>Philadelphia, PA</td>
<td>San Jose, CA</td>
<td>Santa Clara County, CA</td>
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<tr>
<td>Pittsburgh, PA</td>
<td>St. Paul, MN</td>
<td>And over 300 more...</td>
</tr>
<tr>
<td>Minneapolis, MN</td>
<td>Stamford, CT</td>
<td></td>
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</tbody>
</table>

"Working with the MPH-900... *is like fishing with dynamite*... It's tremendous."

---Arizona DPS Director Roger Vanderpool
Mission Critical

70% of all U.S. criminal activity involves vehicles

- World Trade Center bombing
- Oklahoma City car bombing
- Illegal border crossing
- Drug, human and weapons trafficking
- Carjacking and other felony offenses
- DC Sniper
- Suspended and uninsured drivers

✓ Improve Officer Safety
✓ Eliminate Profiling Charges
✓ See What You Can’t See
The Challenge of U.S. Plates

- All License Plates are NOT Created Equal

- The Magic is in the Details that Can Make All the Difference in Results

- High performance levels of the OCR algorithms achieved through customization — 95%+ accuracy

- Only LPR Provider that can read plates in all 50 states including Canada and Mexico
Custom Covert Deployments
ALPR Deployable Command Trailer

- Can take facial shots of driver/passenger
- Deploys anywhere/anytime in under an hour
- Can transmit data to remote location
- Establish checkpoint or operate at speed
ALPR Deployable Checkpoint Trailer

*Full Deployment – Rear View*

- Day/Night Overview camera
- 2nd Rear ELSAG ALPR Camera
- Day/Night Side Facial Camera
- Rear ELSAG ALPR Camera
- Stanchion Ergonomic Leveling System
• Additional Camera inputs are available with Illumination that can cut through windshields in complete darkness...at speed.
Camera Range and Performance

- Operates at 140 MPH passing and closing speeds
- Works day or night, in any kind of weather
- Cameras capable of reading 900 plates per minute
- Reads plates from **all** 50 states including flat and red character plates
- Performs ambiguous searches to improve accuracy
- Alerts within milliseconds if a vehicle is suspect
- Multi-level alarm levels for prioritization
- Can be configured with a variety of different camera ranges
- Can be configured to remotely alarm to an email recipient
- Can operate with data from different sources and be updated on the fly
Continuous Improvement

Comparison between 3\textsuperscript{rd} and 4\textsuperscript{th} generation cameras

New cameras shown with optional light bar mounting
Shift Reporting Results

Click Cartography Tab to display ALL reads in report

Click plate image to display corresponding map location
The MPH-900 works behind the scenes

**Until the alarm sounds!**

Enhancement Buttons Allow User to Zoom On Plate or Brighten Image

Up to 100 characters of alarm description

ALL ALARMS REQUIRE REAL TIME CONFIRMATION WITH NCIC

Confirm State in Alarm matches state of License plate that alarmed.

Alarms can be transmitted to dispatch
Operations Center Function
Central repository for data collection of all cameras in network

• Daily Lifecycle Example:

START OF PATROL  EXTERNAL HOT LIST  END OF PATROL

OFFICE

HOT LIST  MISSION DATA

PATROL

HOT LIST

IMAGES  MPH900  ALARMS

MISSION DATA

Company Confidential
• Easy to use screens for simple data analysis
• Intuitive interface requires little training
Centralization of Data Storage
Images archived at the Central Server

Powerful Analytics
Easy search tools for a variety of options
Search by time, location, area
Conduct partial plate queries

Virtually unlimited number of records
New York City today has over 50MM records *(have never lost one)*

Distributed Scalable Architecture
Database Server, Web Sever, Application Servers on separate machines. Built to support **NATIONWIDE COVERAGE**

Flexible Communication Support:
Built to operate wirelessly over air card or local wi-fi, thumb drive
Initial requests may be further inspected for detailed information.

Positioning the mouse over the thumbnail picture instantly creates a larger picture.

Clicking on the picture results in the detailed screen being presented to the user.
A "point-to-it" map interface allows you to query all reads in a particular area of interest.

Simply place the cursor over the area that you want to search and click.
• The data may also be exported for use in your existing mapping software.
LPR In the War on Terror

Lower Manhattan Security Initiative
- Ring of Steel protecting Financial District
- Dignitary security
- Fixed locations and mobile units
- Over 200 LPR cameras networked together throughout the city
- Incredibly valuable database
  *(over 50MM records)*
# How LPR Is Being Used Today

## Interdiction
- Stolen vehicles and felony apprehensions
- Amber Alerts
- Drug and Weapon Seizures
- **Suspended and Uninsured Drivers**
- Sex Offender violations
- Wants/Warrants
- Traffic Safety
- School Bus Safety

## Intelligence
- Tracking Organized Crime
- Crime Scene Investigations
- Homeland Security Investigations
- Persons of Interest
- Terrorist Watch list
- Remote Alarming

## Income
- Parking Enforcement (booting, timed enforcement, registration violations)
- Tax Collection (City of Hampton Virginia, Chesterfield County, VA, New Haven, CT)

**THESE CAMERAS ALL REPRESENT VALUABLE INTELLIGENCE WHEN CENTRALIZED**
The Pennsylvania Auto Theft Prevention Authority initially supported the deployment of 13 systems with auto theft units across the state.

Results:
2006 (8 months only):
- 248 stolen vehicles recovered/125 stolen plates recovered
- 49 arrests made

2007:
- 263 stolen vehicles recovered/127 stolen plates recovered
- 55 arrests made

2008:
- 348 stolen vehicles recovered/152 stolen plates recovered
- 77 arrests made

Totals for 2 year + timeframe: 859 vehicles recovered and 181 arrests Made

$8.2MM in vehicles recovered
**Recent Results**

**Baltimore County Auto Theft Decline**
"The Baltimore County Police Department has apprehended car thieves, armed robbery suspects, delinquent parents, and drug dealers using the ALPR. Preliminary figures show for the period of January 1, 2008 to December 14, 2008 there was a 12.7 percent decline in auto theft compared to the same period in 2007."  
*Baltimore County Police Press Release 12/18/08*

**Port Arthur PD (Texas) Warrant Sweep – December 2008**
16.5 hrs  
124 traffic stops  
69 arrests  
$71,500.00 recovered in fines.

"It was DNA 10 years ago; LPR is the NEXT Revolution in Policing…"

Dr. Stanley Erickson, National Institute of Justice
**Interdiction Case Study: Washington, DC**

**Metropolitan DC PD Auto Theft Sweep Operation**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Reads</td>
<td>59,650</td>
</tr>
<tr>
<td>Average Total Patrol Time For 5 Vehicles</td>
<td>21 hours</td>
</tr>
<tr>
<td>Stolen Vehicles Recovered</td>
<td>38</td>
</tr>
<tr>
<td>Carjacking Vehicles Identified</td>
<td>5</td>
</tr>
<tr>
<td>Tractor Trailers</td>
<td>1</td>
</tr>
<tr>
<td>Stolen Plates Recovered</td>
<td>14</td>
</tr>
<tr>
<td># Of Bench Warrant Alarms</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL ALARMS WITH INTERDICTION</strong></td>
<td><strong>54</strong></td>
</tr>
<tr>
<td>Average Time Between Alarms</td>
<td>23m : 20s</td>
</tr>
<tr>
<td># Of Guns Recovered</td>
<td>3</td>
</tr>
<tr>
<td># Of Current Arrests</td>
<td>18</td>
</tr>
</tbody>
</table>

**2 DRUG SEIZURES**

Seizure #1 → 62 grams of Crack Cocaine

Seizure #2 → 30 Separate Rocks of Crack Cocaine + 2 Zips of Crack; 1 lb of Marijuana + Measuring and Packaging Devices

**Stolens of Note**

Stolen Tractor Trailer reported stolen in Massachusetts found in DC.

**Capital Grounds**

- #1 Stolen Late Model Truck 8:34 AM 101 Constitution
- #2 Stolen Taxi Cab 6:15 PM Rayburn Office Building
Interdiction Case Study: Arizona

"An Army of ONE"

Officer David Callister

<table>
<thead>
<tr>
<th># of LPR Units</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Months deployed</td>
<td>16</td>
</tr>
<tr>
<td>Total Reads</td>
<td>1,100,000</td>
</tr>
<tr>
<td># of Arrests</td>
<td>100</td>
</tr>
<tr>
<td>Vehicles Recovered</td>
<td>157</td>
</tr>
<tr>
<td># of Wanted Persons</td>
<td>5</td>
</tr>
<tr>
<td>Cash Recoveries</td>
<td>$80,000</td>
</tr>
<tr>
<td>Major Drug recovery</td>
<td>5 lbs. Meth.</td>
</tr>
</tbody>
</table>

Most Productive Hour - 7 Stolen

"Before, when we were on patrol, we didn't have the ability to read every plate that went past us, but this system does exactly that and it also can refer back to vehicles that have passed me hours ago. If I get an Amber Alert, I can research to see if that vehicle had passed me within a certain period of time, and if it did, the system will tell me what direction the vehicle was traveling. The technology is like something out of 'Star Wars'."

--AZDPS Officer Dave Callister
Funding Sources

- Urban Area Security Initiative Grants
- Department of Criminal Justice Services (NY benchmark)
- Law Enforcement Terrorism Prevention Program
- Auto Theft Prevention Authorities
- Insurance Company direct grants
- Governor’s Office’s for Highway Safety
- NHTSA
- School Safety Grants (geo-fencing / school bus safety)
Contact Info

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