
MN STATE PATROL - LICENSE PLATE READER (LPR) FACT SHEET

Minnesota State Patrol currently has **twelve (12)** mobile LPRs (mounted to squads). These units were purchased with grant funding. The grant came through the Department of Commerce (\$144,000) from the insurance industry to recover stolen vehicles with the intent of helping to keep insurance costs down. So far we have recovered over 30 stolen vehicles, saving insurance companies (and taxpayers) thousands of dollars.

Data Retention

- **Data** associated with the LPR is **deleted within 48 hours after the end of the shift** (even if there is a hit).
- The lowest retention setting can be set to 0.

WHO is the equipment assigned to?

- The LPR is mounted on the squad car (Model 3M/PIPS) and utilized by a Trooper while patrolling in areas with high traffic volumes.
- Troopers are provided 1 hour training by 3M technicians at the time equipment is installed.

WHAT does the LPR do?

- LPR is a device that uses infrared cameras to scan license plate data of moving and stationary vehicles.
- Our LPR model takes a digital image of both the license plate and the vehicle the LPR reads.
- The license plate is then compared to a downloaded "hotlist" (data from DVS, NCIC National Crime Information Center and BCA) to identify license plates associated with certain unlawful acts:
 - **Stolen vehicles** and license **plates** (Canadian as well as U.S.)
 - **Suspended or Revoked licenses and registrations**
 - other unlawful activity information such as:
 - ❖ DAC
 - ❖ AMBER alerts
 - ❖ immigration violations
 - ❖ missing persons
 - ❖ protection orders
 - ❖ sexual offenders
- An alert is generated when the LPR identifies license plates that have the possibility of matching information on the hotlist and instantaneous results are received in the squad.
- This information is read and stored for 48 hrs. The trooper is not alerted to a vehicle until there is a "hit".
- Troopers independently confirm all alerts prior to initiating a traffic stop

WHERE are LPRs used?

Twelve (12) LPRs are deployed in high traffic volume locations:

- Four (4) in east metro
- Four (4) in west metro
- One (1) in each district: Rochester, St. Cloud, Duluth and Brainerd.

WHY are LPRs used in traffic law enforcement?

- Data shows that non-licensed drivers are more than 2.2 times more likely to be in a fatal crash.
- Research has shown that suspended/revoked drivers are nearly 4 times more likely to be involved in a crash as compared to valid licensed drivers.
- Our primary focus is traffic enforcement; though LPRs provided added benefits to public safety.
- Use of LPRs allows us to effectively target non-licensed drivers to increase traffic safety, in addition to removing non-licensed drivers from our roads.
- MSP first started using an LPR in 2009

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HOW effective are LPRs?

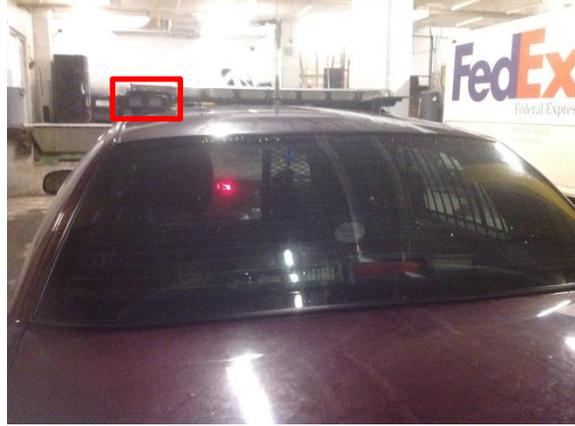
- LPRs could read 9,000+ plates during a shift vs. Troopers manually typing plate entries
- In the first quarter of CY14 there were 355,699 plates read resulting in 6,527 hits.
- In the first quarter of CY14, LPRs generated an excess of 284 traffic stops, 391 citations, 207 for DAS/DAR/DAC, 22 warrant arrests, 7 recovered stolen vehicles, and 31 arrests.
- To date, the LPRs generated 1625 traffic stops, 2,331 citations, 1170 for DAS/DAR/DAC, 121 warrant arrests, 34 recovered stolen vehicles, and 162 arrests.
- LPRs serve as an excellent tool in citing and removing DAS/DAR drivers from our roads, thereby increasing traffic safety.
- Dirty plates as a result of weather/snow create challenges for the LPR to scan plates

FUTURE: LPRs were purchase through an auto-theft grant. July 2014 MSP anticipates deploying four additional LPR's in Rochester, St. Cloud, Duluth, and Brainerd.

Front Squad View, LPRs Mounted under lightbar



Rear Squad View, Mounted Driver Side

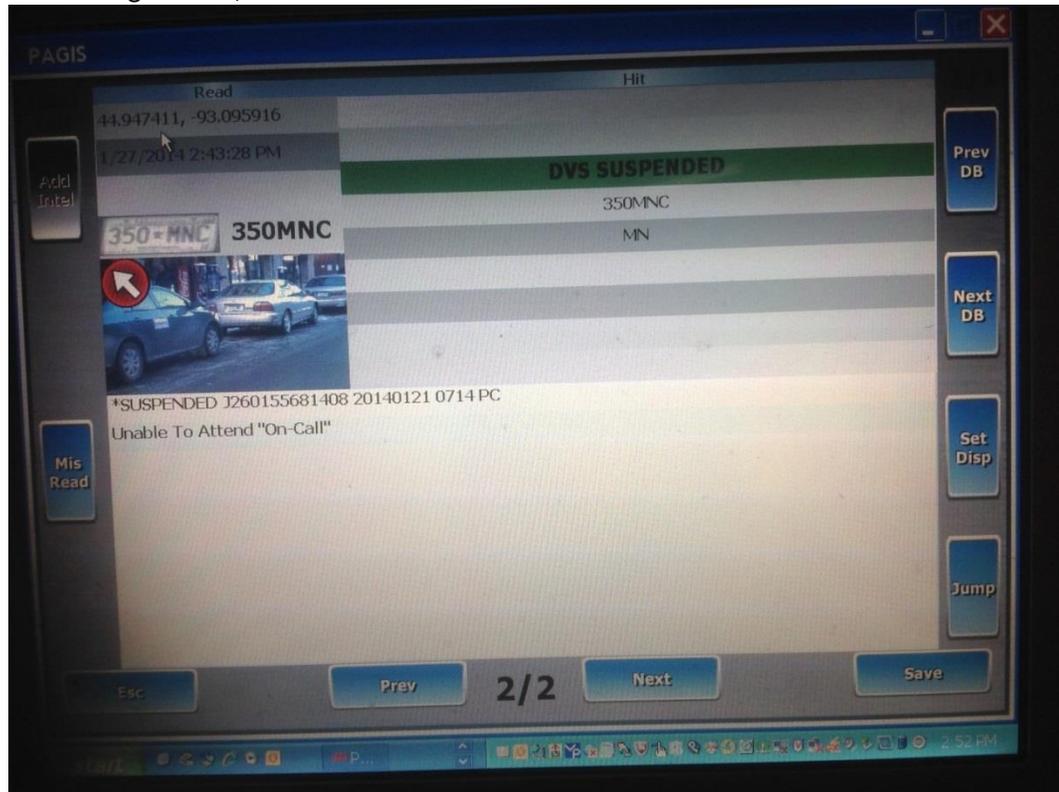


"Alert" Screenshot Display.

- There are two images displayed on the screen, one of the actual license plate and one of the vehicle.
- Note the red circle with the arrow indicates which LPR indicated the hit on a suspended driver.

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In the image below, the arrow indicates the hit was from the driver's side front LPR.



Screenshot showing information collected of non-hits (general LPR reads as it is working - day):

LPN	Timestamp	Patch	Overview	Device	Site	Misread	Hit	Manual	Login	Location	Latitude	Longitude
043LAR	3/31/2014 6:01 PM	043-LAR		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			45.010033	-92
AH934	3/31/2014 5:59 PM	1AH934		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			45.000085	-92
2AE806	3/31/2014 5:58 PM	2AE806		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.997826	-92
238ARY	3/31/2014 5:55 PM	238-ARY		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.997526	-92
97ATL	3/31/2014 5:42 PM	939-ATL		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			45.024405	-92
2AT039	3/31/2014 5:42 PM	2AT039		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			45.023423	-92
380HBA	3/31/2014 5:18 PM	380-HBA		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.997793	-92
341LTA	3/31/2014 5:15 PM	341-LTA		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.975141	-92
N1KNAKS	3/31/2014 5:11 PM	N1KNAKS		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.914218	-92

- License plate, date/time, infrared picture, normal picture, squad # using LPR, agency name, and the longitude & latitude where the read occurred.

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Screenshot showing information collected of non-hits (general LPR reads as it is working - night):

LPRN	Timestamp	Patch	Overview	Device	Site	Miscad	Hit	Manual	Login	Location	Latitude	Lon
VZA088	3/31/2014 8:53 PM	VZA-088		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.997801	-92.
SAU052	3/31/2014 8:52 PM	SAU-052		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.997363	-92.
105LAT	3/31/2014 8:45 PM	105-LAT		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.926306	-92.
890GAT	3/31/2014 8:38 PM	890-GAT		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.926325	-92.
111AI	3/31/2014 8:34 PM			Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.92581	-92.
922AKD	3/31/2014 8:29 PM	922-AKD		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.935513	-92.
691NAE	3/31/2014 8:27 PM	691-NAE		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.935511	-92.
5AT768	3/31/2014 8:26 PM	5AT768		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.935508	-92.
629LAK	3/31/2014 8:26 PM	629-LAK		Unit 43072	MINNESOTA STATE PATROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			44.935508	-92.