

Analysis
of
LPR Systems Utilized
by
Vermont Law Enforcement Agencies



2016

The Department of Public Safety has been tasked with completing an analysis of License Plate Reader (LPR) system related costs and benefits. The analysis as outlined in S. 155 incorporates the following:

1) Estimate the total annualized fixed and variable costs associated with all automated license plate recognition (ALPR) systems used by law enforcement officers in Vermont, including capital, operating, maintenance, personnel, training, and other costs. The estimate shall include a breakdown of costs by category.

(2) Estimate the total annualized fixed and variable costs associated with any planned increase in the number of ALPR systems used by law enforcement officers in Vermont and with any planned increase in the intensity of use of existing ALPR systems, including capital, operating, maintenance, personnel, training, and other costs. The estimate shall include a breakdown of costs by category.

(3) Conduct a cost-benefit analysis of the existing and planned use of ALPR systems in Vermont, and an analysis of how these costs and benefits compare with other enforcement tools that require investment of Department resources.

(4) On or before January 15, 2017, the Department of Public Safety shall submit a written report to the House and Senate Committees on Judiciary and on Transportation of the estimates and analysis required under subsection (a) of this section.

In order to obtain information for this analysis the Vermont Chiefs and Sheriffs were asked to complete a survey identifying the number of LPR units they are actively utilizing, how the purchase cost was funded and reoccurring costs such as training and maintenance that the department has incurred. Responses were received from 29 agencies. It is estimated that 12 agencies that may have used or currently use LPR s did not respond to the survey.

Records of initial LPR purchases made by law enforcement agencies in the state show that 69 units have been purchased since 2009. The initial purchase costs of the LPR units, in all instances except for one, were covered by grant monies from either Homeland Security funds or Governor's Highway Safety funds.

In calculating the approximate cost of \$22,000.00 per unit and the estimated total cost to purchase the 69 LPR units statewide was \$1,518,000.00. It is estimated that \$1,496,000.00 of that was covered by grant monies. One (1) department reported back that one (1) LPR unit had been purchased with department funds.

Based on the reports back from the 29 agencies that responded to the request for LPR information, 41 LPR units are currently being used by Vermont Law Enforcement agencies, other than the Department of Motor Vehicles. The Vermont Department of Motor Vehicles is compiling a separate report. There are 69 units in the state however 4 are down for maintenance or the need to train officers and the others are assigned to departments that did not respond to the request for information for this analysis.

COSTS

Funding from Local Sources

Operating Costs:	\$4,325.00
Training Costs:	\$2,160.00
Maintenance Costs:	\$16,470.00
Personnel Costs:	\$3,250.00
Annual Capital Costs:	\$10,450.00

Total Costs Annually \$36,655.00

Funding from State Sources

The Vermont Department of Public Safety has been charged with providing data storage for all LPR systems. The cost of providing data storage and maintenance during FY2016 is:

Department of Information & Innovation demand service:	\$46,425
Server maintenance and storage:	\$47,760
Personnel support:	\$15,775
LPR Maintenance Costs:	\$3,750.00
Capital Costs:	\$3,510.00
Total Cost Annually:	\$117,220.00

BENEFITS

Total number of ALPR units being operated in the State and the number of units submitting data to the statewide ALPR database

There are currently 69 ALPR units being operated by state, county and municipal law enforcement agencies in Vermont.

Total number of ALPR readings each agency submitted to the statewide ALPR database and the 18-month cumulative number of ALPR readings being housed on the statewide ALPR database.

ALPR Readings by Agency

July 1, 2015 – December 31, 2016

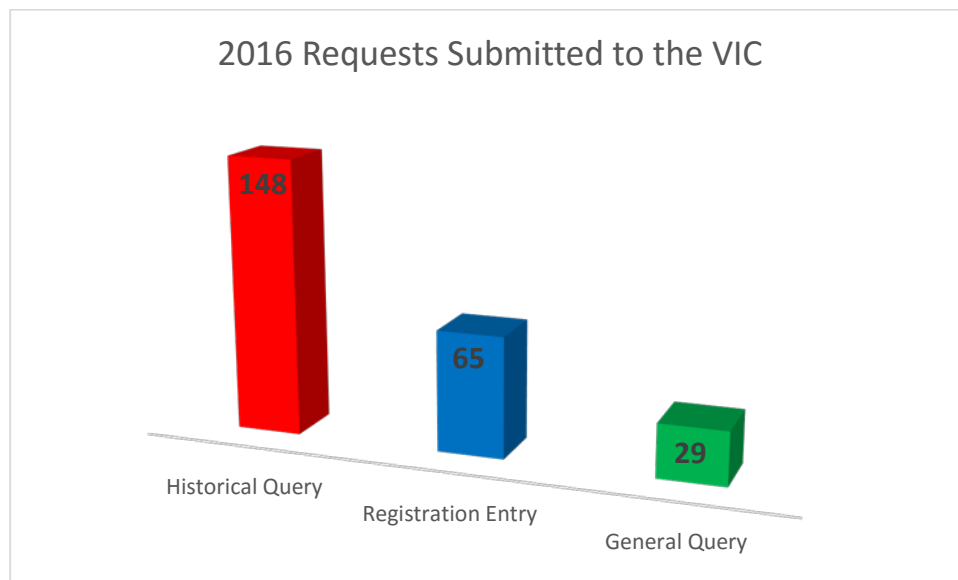
Agency	Reads	Agency	Reads
Vermont State Police	1,160,123	Milton PD	420,492
Barre PD	0	Newport PD	11,069
Bennington CSD	60,156	Northfield PD	77,985
Bennington PD	208,608	Orange CSD	99,426
Brandon PD	115,289	Orleans CSD	18,001
Brattleboro PD	59,003	Rutland City PD	146,202
Burlington PD	225,736	Rutland CSD	221,634
Castleton PD	20,198	Rutland Town PD	145,394
Chittenden CSD	1,045,726	Shelburne PD	643,166
Colchester PD	764,333	South Burlington PD	594,271
DMV	55,053	Springfield PD	42,830
Essex CSD	27,219	St. Albans PD	133,167
Essex PD	163,973	Stowe PD	106,354
Franklin CSD	89,088	Swanton PD	48,834
Grand Isle CSD	107,006	Vergennes PD	113,826
Hardwick PD	22,714	Waterbury PD	64,710
Hartford PD	0	Williston PD	1,256,417
Hinesburg PD	109,726	Wilmington PD	77
Lamoille CSD	9,103	Windsor CSD	117,585
Ludlow PD	0	Winhall PD	47,054
Manchester PD	8,977	Winooski PD	258,286

Total Cumulative Statewide Reads – 8,818,8811

Total Number of Requests Made to the VIC - 242

TYPE OF ALPR REQUESTS TO VIC

Historical Query	148
Registration Entry	65
General Query	29



*Note – More than one activity may be performed per request received by the VIC. For example, when a “Registration Entry” is requested, a “General Query” is automatically conducted within the ALPR program. **If the information returned is not relevant to the case it is not released to the requesting agency.**

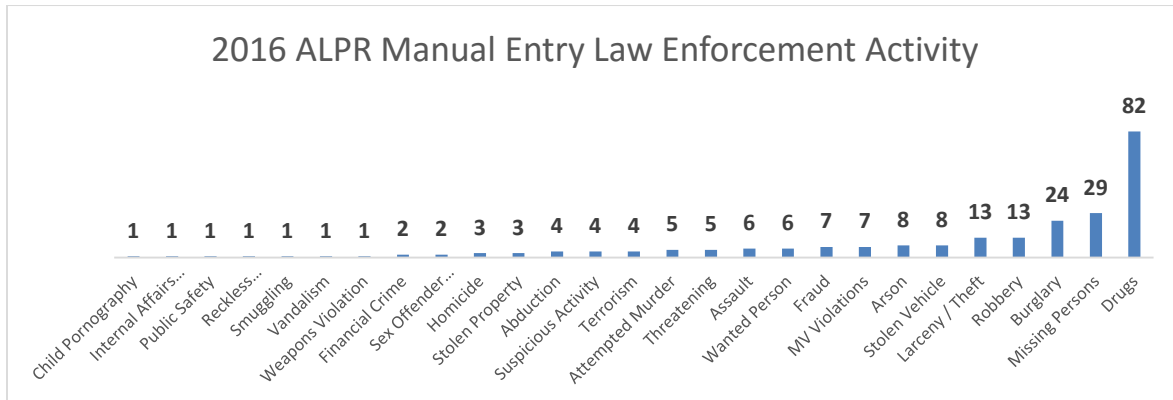
Registration Removals are completed when the case is no longer active. Any Registration Entry requests completed by the VIC are purged from the ALPR system after seven (7) days regardless of the outcome of the case.

Registration Entry: An entry of a vehicle registration is manually conducted during an active investigation where waiting for the NCIC Hotlist to upload would jeopardize the case or there are safety concerns for either the occupant of the vehicle or to the general public.

Historical Query: A query that is conducted for a specified timeframe, where the date is prior to the date of the request.

General Query: A query that is conducted for the specified date of the request.

INQUIRY/ENTRY REASON



Requests for manual ALPR entries are numerous to include; missing person cases, narcotic cases, burglaries, wanted persons, robberies, etc.

Total number of requests that resulted in release of information from the statewide ALPR database and the total number of out-of-state requests that resulted in release of information from the statewide ALPR database.

In-state Release of Information – 52

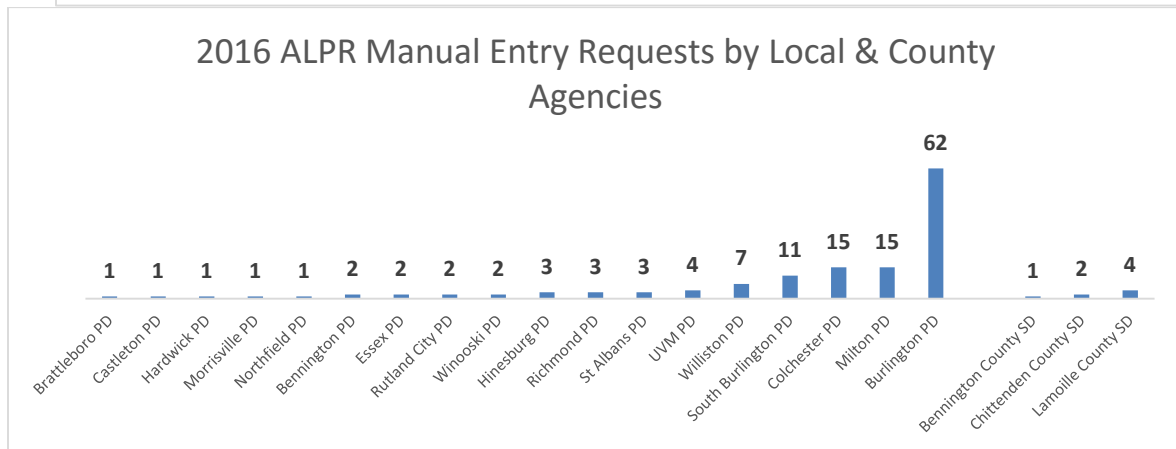
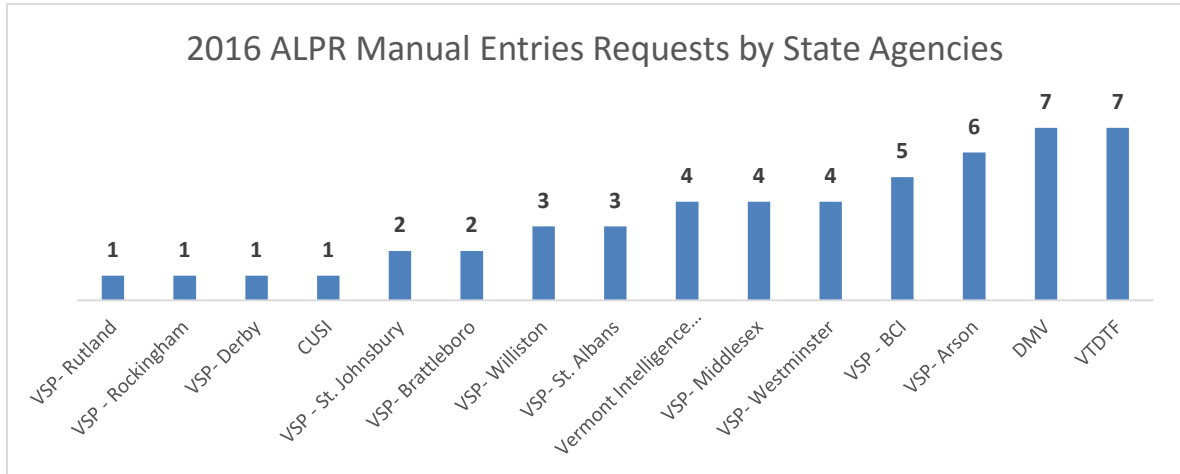
Out-of-State Release of Information (includes all federal agencies) – 7

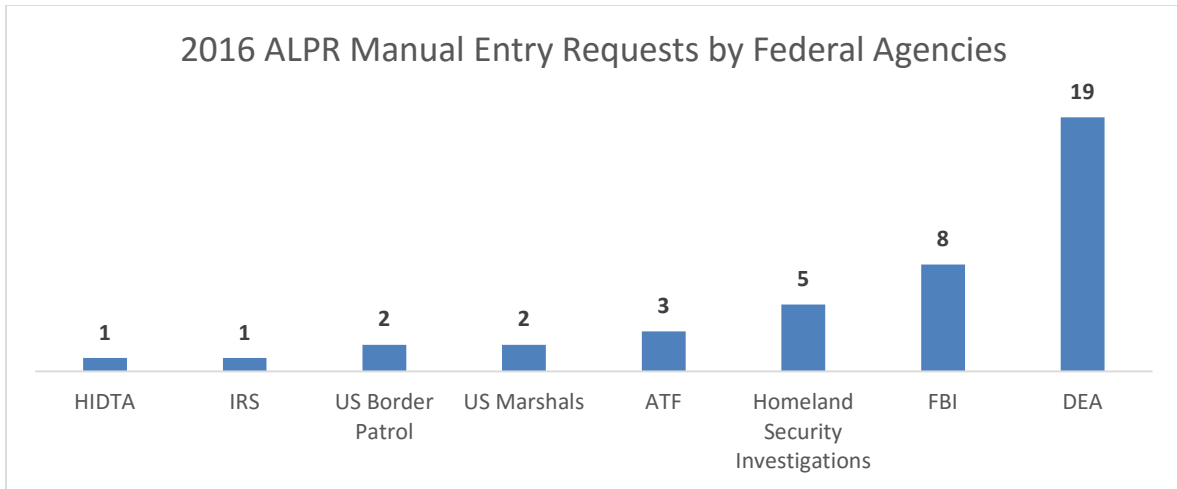
When inquiries are made the ALPR system will generate results, either positive (the license plate has been read) or negative (the license plate has not been read). Information is only released to an agency when there are “positive reads” that are relevant to their case or that there were “No Reads” found. **If the information returned is not relevant to the case and is not in the specified timeframe of the request, the information is not released to the requesting agency.**

For example, an officer may be looking for a specific plate during a certain time period. The date parameters are set within the ALPR system and any “positive” reads, the information will be sent to the requesting officer. This information includes the date, time and the location where the vehicle was recorded by GPS coordinates. A picture of the plate from the front, back of the vehicle will also be sent if available.

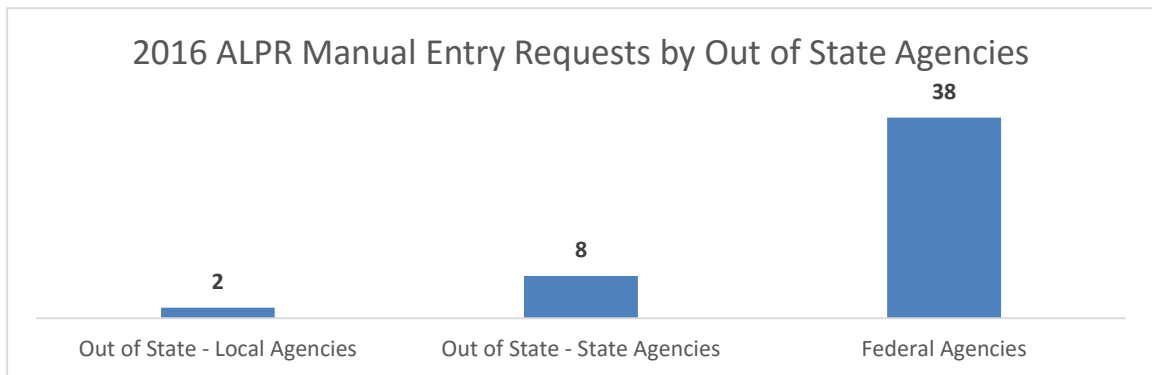
REQUESTS BY AGENCY

The ALPR requests have been broken down by State, Local, County and Federal Agencies that have submitted a request to the VIC for manual entry. Prior to any action by the VIC, a mandatory ALPR form is required to be submitted by the investigating officer with a supervisor's approval. The VIC will complete requests from BOL's (Be on the Lookout) from nearby states involving serious offenses and the mandatory ALPR form will be completed by an analyst at the VIC, for each action.





Total Number of Out-of-State Manual Entry Requests



The LPR systems allow officers to be more efficient in their patrol and investigative functions in instances where successful hits are made. If for example a registration plate was entered into the system related to a missing person and that plate was read by a LPR alerting the officer, s/he would immediately be able to take appropriate action.

At this time the technology does not exist to allow a statewide report of outcomes related to positive reads however, work is being done with the company in an effort to make this possible in the future.

