

THE CASE AGAINST RED LIGHT CAMERAS

**A REPORT PREPARED BY THE RHODE ISLAND AFFILIATE,
AMERICAN CIVIL LIBERTIES UNION**

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EXECUTIVE SUMMARY

In 2005, the Rhode Island General Assembly, at the behest of the City of Providence, enacted a law authorizing municipalities to use “red light camera” technology. However, because of legislative concerns about the technology, the statute contained a July 2008 sunset clause. Thus far, Providence remains the only municipality to have made use of the law, and it has been vigorously pursuing efforts this legislative session to repeal the sunset provision and allow for permanent use of the cameras. The House of Representatives has already voted to do so.

This report argues that it would be a mistake for the state to repeal the sunset clause. In particular, relying largely on data supplied by the City of Providence itself, our report notes:

- Although initially touted by the City as a revenue-enhancing measure, Providence thus far has actually lost almost a million dollars in this enterprise – making money for the private company running the technology, while the taxpayers foot the bill.
- Data submitted by the City fail to document that the cameras have reduced the number of crashes at intersections where the technology has been employed.
- Although the 2005 statute required the City to submit annual reports that were designed to help policy-makers reach an informed conclusion about the utility of these camera systems, the City’s reports are filled with inconsistencies and inaccuracies, making informed policy-making virtually impossible.
- The City has failed to separately submit related data and reports to the Providence City Council as required by city ordinance, including a baseline study that would have provided useful data on any changes in accident outcomes before and after camera installation.

- For a variety of reasons, fewer than half of the alleged violations photographed by the cameras result in the issuance of citations.
- The use of red light camera technology continues to raise significant due process, privacy and other civil liberties concerns.

For all these reasons, the Rhode Island ACLU believes that it would be a mistake to reauthorize municipal use of “red light camera” technology. The General Assembly should resist efforts to do so, as the case for their continued use simply has not been made.

INTRODUCTION

Expensive. Ineffective. Inefficient. Intrusive of civil liberties. These are just a few ways to describe the Automated Traffic Violation Monitoring Systems, more commonly known as *red light cameras*, which the City of Providence – and only the City of Providence – is currently using and has been using for the past two years.

Yet despite these concerns, the General Assembly appears poised to let the City – and any other interested municipality – make use of these systems on a permanent basis. This decision is being made even as the City of Providence has failed to comply in a meaningful way with statutory reporting requirements that were designed to help policy-makers reach an informed conclusion about the utility of these systems.

In this brief report, the Rhode Island ACLU examines the available data on the Providence experiment. Based on that data, the ACLU urges the General Assembly to let this experiment lapse.

“Red light cameras” are, as the name suggests, devices that photograph automobiles going through red lights and then send automated citations to the registered owner or lessee of the vehicle photographed. The use of red light cameras in Rhode Island was made possible in 2005 after passage of a bill authorizing their implementation throughout the state. Though touted by proponents as an easy way to catch red light violators and bring safety to our streets, the bill passed by a margin of only nine votes in the House, and only after extensive discussion and amending, including the addition of an annual reporting requirement and a sunset provision repealing the law three years after enactment – July 2008.

Because the law is set to expire this summer, the City of Providence – which had first proposed the authorizing legislation back in 2004 – has been actively lobbying the General Assembly to repeal the sunset clause and allow permanent use of red light cameras by cities and towns. Last month, again by a close vote, the House passed H-7195, repealing the sunset clause and making the authorization of red light camera use permanent. Companion bills are now pending in the Senate. (08 S-2139, 08 S-2706).

The ACLU stood opposed to the original legislation that authorized use of these devices, as well as subsequent bills designed to eliminate the sunset clause. The ACLU has cited multiple due process and privacy concerns with the technology. Now added to the list of concerns – backed by information collected by Providence itself – are their cost, the lack of any data supporting an initial need for the cameras, and questions as to whether the cameras are even effective in reducing accidents.

I. COSTS

When the City of Providence first began looking into the possibility of using red light camera technology in 2003, Mayor David Cicilline candidly promoted the cameras as a revenue-enhancing measure for the city. The candor was refreshing since proponents usually tried to express support for the technology as a method to promote safety, even though most studies had failed to show any significant safety benefit from installation of these cameras.

Although red light cameras bring in revenue by way of paid violations, information submitted by the City since it installed the system in 2006 shows that the City is actually paying out much more than it is taking in. In light of both the fiscal crisis facing municipalities and the purported revenue-enhancing rationale behind installing the cameras in the first place, it is very surprising, to say the least, to see the City so eager to continue this flawed experiment.

The current monthly invoice paid by the City to the private company contracted to install and maintain the cameras, process violations, and provide project management is \$113,750. The revenue generated by tickets from the system has not been nearly sufficient to cover those costs. Since installation of the first cameras in April 2006 through February 2008, records show that, leaving aside equipment replacement costs, Providence's expenses have exceeded revenue received from the tickets by \$749,431, much of which has gone to the private company maintaining the cameras. Including equipment replacement costs adds \$223,472 to the City's expenses over the two years, bringing the City's total net losses to \$972,903 – nearly one million dollars!¹

¹ A report prepared on the State of Virginia's initial red light camera program had similarly noted: "Data show that, in general, Virginia localities are not generating net revenue." [An Evaluation of Red Light Camera (Photo-Red) Enforcement Programs in Virginia: A Report in Response to a Request by Virginia's Secretary of Transportation (January 2005)]

Even more astounding, as noted below, the spotty data supplied by the City fails to even show any type of significant decrease in accidents at the red light camera intersections. The City's desire to push ahead with the cameras is thus baffling.

II. INEFFECTIVENESS

The enabling statute passed by the General Assembly in 2005 requires municipalities using the devices to submit an annual report analyzing the cameras' effectiveness. Unfortunately, the first report, filed last year by the City of Providence, did not include comparative before-and-after data of red light violations or accidents at the intersections where cameras had been installed – making it impossible to determine if the cameras were in fact improving safety.² What was reported was that of the seven intersections that had cameras in 2006, there were a total of 44 accidents. Significantly, the report does not indicate what types of accidents these were.

The major safety rationale behind red light cameras is that they help reduce potentially dangerous side-impact crashes. Data from the Federal Highway Administration have demonstrated that red light cameras do decrease side-impact collisions by 25%, but at the expense of a *15% increase in the number of rear-impact crashes*.³ Based on the report from Providence, we have no idea if the 44 accidents in 2006 were side- or rear-impact, nor do we know if they represent a reduction from before the cameras were in place.

The City's second annual report, providing data for the 2007 calendar year, is only slightly more helpful in determining accident reduction. Importantly, when comparing the data for the seven cameras in use during both 2006 and 2007, we find that *there was actually one more accident and four more injuries at these intersections in 2007 compared to the prior year*.

As limited as this data may be, the results are not surprising. In opposing the original 2005 law, the RI ACLU had pointed out that Virginia's DOT-commissioned study found an

² Although not required by the state law, such a comparative analysis was required by a separate ordinance adopted by the Providence City Council. However, this information was never submitted to the Council.

³ Safety Evaluation of Red-Light Cameras, Publication No. FHWA-HRT-05-048, April 2005. Available online at <http://www.tfhrc.gov/safety/pubs/05048/05048.pdf>.

increase in total injury crashes across the state, even as it reported a decrease in crashes directly attributable to red-light running: “[A]nalysis indicated that the cameras are contributing to a definite increase in rear-end crashes, a possible decrease in angle crashes, a net decrease in injury crashes attributable to red light running, and an increase in total injury crashes.”⁴ A more detailed follow-up report issued in 2007 in Virginia came to similar conclusions.⁵

Without comparative before-and-after data, it is generally impossible to discern what, if any, changes in the number and types of accidents occurred in Providence with the advent of the red light camera system. What can be seen is that the most common type of accidents were rear-end collisions, followed closely by sideswipings. Consider the table below that utilizes statistics provided by the 2007 annual report in regards to the manner of impact for each of the total 187 accidents that took place at camera intersections that year:

| Manner of Impact | Total number | Percentage of all accidents |
|-------------------------|---------------------|------------------------------------|
| Rear-end | 66 | 35.3% |
| Head-on | 4 | 2.1% |
| Side-angle | 45 | 24.1% |
| Sideswipe | 64 | 34.2% |
| Rear-to-Side | 3 | 1.6% |
| Rear-to-Rear | 1 | 0.5% |
| Other | 1 | 0.5% |
| Unknown | 3 | 1.6% |

Side-impact crashes accounted for a little less than one-quarter of all accidents. As mentioned earlier in the report, other studies have shown an increase in rear-end collisions at camera intersections. It’s possible that Providence may be following in that direction.

⁴ “An Evaluation of Red Light Camera Enforcement,” fn. 1, supra.

⁵ This latest report is available online at http://www.virginiadot.org/vtrc/main/online_reports/pdf/07-r2.pdf.

Especially frustrating is that a separate reporting requirement exists, put in place by Providence city ordinance, that requires: “[P]rior to installation of any traffic-control signal monitoring device or signage therefor, a study shall be done to document the baseline of red-light running at each intersection, so that the efficacy of the installation can be demonstrated.”⁶ Expressly included in this study is “a review of any existing crash data.”⁷ Our attempts to locate and obtain copies of these studies have been unsuccessful. If they were prepared, City officials have been unable to point us to them. These missing studies would have been helpful in ascertaining whether or not there has been a decrease in accidents at these camera intersections directly associated with the cameras’ installation, and therefore a documented benefit to having them. That Providence has not been able to provide this data is another reason to reject the City’s efforts to make the law permanent.

⁶ Providence Municipal Code, Article X, Sec. 15-128.

⁷ Ibid.

III. UNINTELLIGIBLE DATA

What is perhaps most problematic about the data that *has* been provided by Providence are the abundance of inconsistencies. Depending on the document one reviews – whether a single graph used by the City during testimony to show data regarding tickets paid and the cost to run the cameras, or the full annual reports from 2006 or 2007 also prepared by the City – one finds different statistics. As discussed below, the accident data are questionable, but so are the data regarding the number of tickets mailed and paid. For example, the fiscal analysis chart used by the City in testimony to the House Finance Committee of the cameras contains numbers of tickets mailed and paid that do not match the numbers reported in the 2006 and 2007 reports.

Although the City of Providence’s 2007 report does clarify the types of accidents that occurred at the camera intersections, things only get more confusing upon closer look. The City’s report provides two separate graphs for each intersection where red light cameras are in use. The first graph (see page 13) includes data, broken down by month, on the numbers and types of injuries at the intersection and the manner of impact of the accidents (rear-end, head-on, side-angle, sideswipe, etc.). The second graph (page 14) delineates whether the accident was a (1) non-collision, (2) collision with a person, vehicle or non-fixed object, or (3) a collision with a fixed object. When examined together, the figures make no sense.

The *first* graph for each and every intersection breaks down the data in a way to indicate that all accidents occurred between two vehicles in transport. However, the *second* graph inexplicably denotes that almost all accidents involved collision with a fixed object, such as a tree or utility pole. That second graph raises many questions about its accuracy, as most of the “fixed object” collisions are actually reported as being with “unknown” objects. Clearly there is a problem with the initial accident reports or with the data entered for the report.

| | |
|--------------|----------------------|
| Project Name | Providence ATVMS |
| Location | Consolidated FY 2008 |
| Location ID | All |

| # Accidents | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | Total FY |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|
| | Total % | Total % | Total % | Total % | Total % | Total % | Total % | Total % | Total % | Total % | Total % | Total % | Total % |
| Injury | 14 22% | 20 27% | 23 20% | 16 33% | 31 14% | 6 7% | 16 10% | 14 2% | 8 7% | 6 4% | 16 5% | 17 8% | 187 104 56% |
| Complaints of Pain 1 | 1 17% | 12 17% | 15 20% | 14 33% | 14 20% | 7 7% | 10 24% | 2 6% | 7 7% | 4 29% | 5 12% | 8 21% | 104 56% |
| Nbr. Incapacitating 2 | - | - | 3 20% | - | 2 14% | - | - | 2 100% | 4 57% | 2 50% | 5 100% | 6 75% | 25 24% |
| Incapacitating 3 | - | 1 8% | 2 13% | 3 21% | - | - | 1 10% | - | - | - | - | - | 7 7% |
| Fatal 4 | 4 67% | 6 50% | 5 33% | 11 79% | 9 84% | 7 100% | 8 80% | - | - | - | - | - | 50 48% |
| No Injury 5 | 21 33% | 33 42% | 59 53% | 29 61% | 55 25% | 9 9% | 32 32% | 34 34% | 6 6% | 10 10% | 36 36% | 30 30% | 354 354 0% |
| Unknown 6 | 1 17% | 5 42% | 5 33% | - | 3 21% | - | 1 10% | - | 3 43% | 2 50% | - | 2 25% | 22 21% |
| Manner of Impact | 14 100% | 20 100% | 23 100% | 16 100% | 31 100% | 6 100% | 16 100% | 14 100% | 8 100% | 6 100% | 16 100% | 17 100% | 187 100% |
| Not a Collision Between 2 Vehicles in Transport | - | - | - | - | - | - | - | - | - | - | - | - | 0% |
| Rear End (Front-to-Rear) 2 | 4 29% | 7 35% | 5 22% | 6 38% | 10 32% | 3 50% | 6 38% | 5 38% | 4 50% | 4 67% | 8 50% | 4 24% | 66 35% |
| Head-On (Front-to-Front) 3 | - | - | 1 4% | - | 1 3% | - | - | - | 1 13% | - | 1 8% | - | 4 2% |
| Angle (Front-to-Side) Same Direction 4 | - | - | - | - | - | 1 17% | - | 1 7% | 1 13% | - | 1 8% | - | 4 2% |
| Angle (Front-to-Side) Opposite Direction 5 | 2 14% | 3 15% | - | - | 3 10% | - | - | - | - | - | - | 3 18% | 11 6% |
| Angle (Front-to-Side) Right Angle (includes Broadside) 6 | 2 14% | 4 20% | 6 28% | 8 38% | 2 8% | 1 17% | 3 19% | - | - | 1 17% | 2 13% | - | 27 14% |
| Angle-Direction Not Specified 7 | 1 7% | - | - | - | - | - | - | 1 7% | - | - | - | - | 3 2% |
| Sideswipe, Same Direction 8 | 4 29% | 3 15% | 9 39% | 4 25% | 10 32% | 1 17% | 3 19% | 6 43% | 2 25% | - | 3 19% | 7 41% | 52 28% |
| Sideswipe, Opposite Direction 9 | - | 2 10% | 2 9% | - | 4 13% | - | 3 19% | - | - | - | - | 1 6% | 12 6% |
| Rear-to-Side 10 | - | - | - | - | 1 3% | - | 1 8% | 1 7% | - | - | - | - | 3 2% |
| Rear-to-Rear 11 | 1 7% | - | - | - | - | - | - | - | - | - | - | - | 1 1% |
| Other 12 | - | - | - | - | - | - | - | - | - | - | - | - | 1 1% |
| Unknown 13 | - | 1 5% | - | - | - | - | - | - | - | 1 17% | - | 1 6% | 3 2% |

Project Name: Providence ATVMS
 Location: Consolidated FY 2008
 Location ID: All

| Project Name Location Location ID | Posted Speed Limit: 25mph | Providence ATVMS Consolidated FY 2008 | | | | | | | | | | | | Total FY Total | Total % | | | | | | | | | | | |
|--|---------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|---------|-------|------|----|-----|----|------|-----|------|------|-----|-----|
| | | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | | | | | | | | | | | | | |
| | | Total | % | Total | % | Total | % | Total | % | Total | % | Total | % | Total | % | Total | % | | | | | | | | | |
| Most Harmful Event | | 14 | | 20 | | 23 | | 16 | | 6 | | 14 | | 8 | | 6 | | 16 | | 17 | | 187 | | | | |
| Non-Collision | | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 1% | | | |
| Overturn/ Rollover 1 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | | |
| Fire/ Explosion 2 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Immersion 3 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Jackknife 4 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Cargo/ Equip. Loss or Shift 5 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Fall/ Jumped from Motor Vehicle 6 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Throw or Falling Object 7 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Other Non-Collision 8 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% | |
| Collision-Pers. Veh or Non-Fixed Obj | | 1 | 7% | 0 | 0% | 2 | 9% | 3 | 19% | 0 | 0% | 1 | 6% | 1 | 7% | 0 | 0% | 6 | 38% | 1 | 6% | 1 | 100% | 15 | 8% | |
| Pedestrian 9 | | - | - | - | - | 2 | 100% | 2 | 67% | - | - | 1 | 100% | - | - | - | - | - | - | - | - | - | 1 | 100% | 6 | 40% |
| Pedalcycle 10 | | 1 | 100% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 7% | |
| Railway Vehicle (Train, Engine) 11 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Animal 12 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Motor Vehicle in Transport 13 | | - | - | - | - | - | - | 1 | 33% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Work Zone/ Maintenance Equip 14 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Other Non-Fixed Object 15 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Collision w/Fixed Object | | 13 | 93% | 20 | 100% | 21 | 91% | 13 | 81% | 31 | 100% | 15 | 94% | 13 | 93% | 8 | 100% | 10 | 63% | 15 | 88% | 10 | 100% | 171 | 91% | |
| Impact Attenuator/ Crush Cushion 16 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 1% |
| Bridge Overhead Structure 17 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Bridge Pier or Support 18 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Bridge Rail 19 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Guardrail 20 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Curb 21 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Ditch 22 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Embankment 23 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Guardrail Face 24 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Guardrail End 25 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Jersey/ Concrete Traffic Barrier 26 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Other Traffic Barrier 27 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Tree (Stranding) 28 | | - | - | - | - | - | - | - | - | - | - | 1 | 7% | - | - | - | - | - | - | - | - | - | - | - | 1 | 1% |
| Landscaping 29 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Utility Pole(Elec/Tele)/Light Support 30 | | - | - | - | - | - | - | - | - | - | - | 1 | 7% | - | - | - | - | - | - | - | - | - | - | - | 1 | 1% |
| Highway Lighting/ Light Standard 31 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Traffic Sign/ Support 32 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Traffic Signal/ Support 33 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Traffic Control Box 34 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Variable Message Board/ Arrow Board 35 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Other Post, Pole or Support 36 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Fence 37 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1% |
| Mailbox 38 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0% |
| Other Fixed Obj. (Wall, Bldg, Tunnel, etc.) 39 | | - | - | 1 | 5% | 3 | 14% | - | - | - | - | 1 | 7% | 1 | 13% | - | - | - | - | - | - | - | - | - | 5 | 3% |
| Unknown 40 | | 13 | 100% | 19 | 95% | 18 | 86% | 13 | 100% | 31 | 100% | 8 | 100% | 13 | 100% | 7 | 85% | 8 | 80% | 15 | 100% | 161 | 94% | 161 | 94% | |

In short, anyone attempting to analyze the city's data in any meaningful way is left scratching his or her head. To make matters even more confusing, the City reports provide no explanation of the methodology that went into the graphs or any definitions of the terminology used. It quickly becomes apparent that the numbers given cannot be trusted because they simply don't add up, making it impossible to come to any scientifically significant – or even correlational – conclusions.

Finally, the data put together by the City is deficient in one other major respect. Concurrently with passage of the 2005 legislation, the Providence City Council adopted an ordinance establishing additional standards for use of red light cameras in the city. In addition to the baseline studies mentioned earlier, the ordinance included a requirement that a report be submitted every six months to the City Council that included the monthly number of recorded violations, paid citations and accidents for each location. To this day, as best as the ACLU has been able to determine, no such reports have ever been submitted.

IV. INEFFICIENCY

Another area that casts doubt on the efficacy of the cameras involves their efficiency ratings. According to implementing regulations adopted by the Rhode Island Department of Transportation, the cameras are supposed to meet certain performance standards. Included among them is a 70% efficiency rate, meaning that for every 100 violations captured by the camera, at least 70 citations should result. Among the reasons a ticket might not issue: in the captured image the license plate was obstructed or damaged and therefore unreadable, the plate and vehicle information returned no results in a DMV search, or there simply was no plate on the car. Overall, however, when comparing the number of alleged violations to the number of mailed citations, the cameras in Providence produced tickets only about 27% and 40% of the time in 2006 and 2007 respectively, well below the DOT's standards. (See chart on the following page comparing the efficiency of the seven cameras in use during both 2006 and 2007.)

The City's 2007 report acknowledges these rates; however, in order to avoid the logical consequences of this troubling data, the City report seems to employ a different formula to determine what it refers to as the "issuance rate." The violations allegedly captured by the camera that did not result in tickets are broken down by the City into "controllable" and "uncontrollable" rejections, and by so breaking down the data, the City manages to come up with an average issuance rate for 2007 of 87%. (Nonetheless, in another example of the muddled nature of the data, the "issuance rate" does not, in fact, match – though it generally comes close to – the expected efficiency rate if "uncontrollable" objections were removed from the equation.)

Once again, though, this manipulation of the data leaves anyone trying to make sense of the information provided in the report confounded. As with the other graphs in the report, missing from this are any definitions or explanation of the data analysis. (See chart, page 18.)

**Comparison: % of Violations that become citations,
cameras in place for both 2006 and 2007***

| Location | Month | 2006 Violations | 2006 Citations | 2006 Efficiency | 2007 Violations | 2007 Citations | 2007 Efficiency |
|---------------------|--------|-----------------|----------------|-----------------|-----------------|----------------|-----------------|
| 102 | May | 398 | 98 | 24.62% | 67 | 44 | 65.67% |
| | June | 285 | 104 | 36.49% | 108 | 59 | 54.63% |
| | July | 298 | 90 | 30.20% | 72 | 15 | 20.83% |
| | August | 341 | 80 | 23.46% | 46 | 22 | 47.83% |
| | Sept | 542 | 152 | 28.04% | 64 | 28 | 43.75% |
| | Oct | 464 | 144 | 31.03% | 84 | 37 | 44.05% |
| | Nov | 349 | 223 | 63.90% | 64 | 35 | 54.69% |
| | Dec | 168 | 58 | 34.52% | 51 | 34 | 66.67% |
| Yearly Average | | | | 34.03% | | | 49.76% |
| 201 | May | 672 | 32 | 4.76% | 259 | 154 | 59.46% |
| | June | 613 | 88 | 14.36% | 286 | 149 | 52.10% |
| | July | 618 | 87 | 14.08% | 262 | 118 | 45.04% |
| | August | 767 | 106 | 13.82% | 254 | 134 | 52.76% |
| | Sept | 892 | 252 | 28.25% | 362 | 179 | 49.45% |
| | Oct | 1038 | 321 | 30.92% | 324 | 182 | 56.17% |
| | Nov | 851 | 303 | 35.61% | 276 | 139 | 50.36% |
| | Dec | 752 | 116 | 15.43% | 219 | 137 | 62.56% |
| Yearly Average | | | | 19.65% | | | 53.49% |
| 303 | June | 214 | 54 | 25.23% | 37 | 11 | 29.73% |
| | July | 197 | 51 | 25.89% | 42 | 7 | 16.67% |
| | August | 213 | 49 | 23.00% | 64 | 13 | 20.31% |
| | Sept | 213 | 49 | 23.00% | 99 | 27 | 27.27% |
| | Oct | 198 | 63 | 31.82% | 60 | 23 | 38.33% |
| | Nov | 170 | 65 | 38.24% | 25 | 17 | 68.00% |
| | Dec | 137 | 39 | 28.47% | 27 | 17 | 62.96% |
| Yearly Average | | | | 27.95% | | | 37.61% |
| 304 | Oct | 644 | 139 | 21.58% | 118 | 57 | 48.31% |
| | Nov | 768 | 133 | 17.32% | 65 | 37 | 56.92% |
| | Dec | 481 | 55 | 11.43% | 49 | 30 | 61.22% |
| Yearly Average | | | | 16.78% | | | 55.48% |
| 404 | Oct | 229 | 64 | 27.95% | 169 | 115 | 68.05% |
| | Nov | 386 | 139 | 36.01% | 253 | 137 | 54.15% |
| | Dec | 386 | 23 | 5.96% | 234 | 154 | 65.81% |
| Yearly Average | | | | 23.31% | | | 62.67% |
| 501 | Nov | 478 | 203 | 42.47% | 216 | 118 | 54.63% |
| | Dec | 235 | 77 | 32.77% | 208 | 134 | 64.42% |
| Yearly Average | | | | 37.62% | | | 59.53% |
| 502 | Nov | 438 | 156 | 35.62% | 199 | 110 | 55.28% |
| | Dec | 370 | 84 | 22.70% | 175 | 106 | 60.57% |
| Yearly Average | | | | 29.16% | | | 57.92% |
| Average All Cameras | | | | 26.64% | | | 50.51% |

| Number | Location |
|--------|-------------------------|
| 102 | Oakland SB @ Chalkstone |
| 201 | Raymond NB @ Chalkstone |
| 303 | Eaton EB @ Huxley |
| 304 | Eaton WB @ Huxley |
| 404 | Steeple WB @ Canal |
| 501 | Valley NB @ River |
| 502 | Valley SB @ River |

*Chart compares months in which data was available for both years. Although the 2007 overall efficiency is about 50% in this chart, once the other 18 cameras in place during 2007 are factored in the overall efficiency decreases to 40%.

| | |
|--------------|----------------------|
| Project Name | Providence ATIVMS |
| Location | Consolidated FY 2008 |
| Location ID | All |

| | Jan-07 | Feb-07 | Mar-07 | Apr-07 | May-07 | Jun-07 | Jul-07 | Aug-07 | Sep-07 | Oct-07 | Nov-07 | Dec-07 | Total FY |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total |
| | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Possible Violations | 1,584 | 1,502 | 6,301 | 6,133 | 6,228 | 7,256 | 6,039 | 5,346 | 5,272 | 4,571 | 3,625 | 3,437 | 57,294 |
| Rejects (All) | 852 | 997 | 4,555 | 3,546 | 4,060 | 4,528 | 3,930 | 3,014 | 2,914 | 2,333 | 2,031 | 1,773 | 34,533 |
| | 53% | 66% | 72% | 58% | 65% | 62% | 65% | 56% | 55% | 51% | 56% | 52% | 60% |
| DWV No Hit (U) | 248 | 216 | 823 | 891 | 839 | 935 | 1,136 | 991 | 997 | 832 | 496 | 216 | 8,025 |
| Vehicle Match Failure (U) | 92 | 98 | 372 | 427 | 500 | 600 | 478 | 325 | 414 | 317 | 194 | 104 | 4,011 |
| Car Obstructed (U) | 6 | 8 | 476 | 386 | 425 | 291 | 211 | 253 | 277 | 182 | 73 | 64 | 2,623 |
| Plate Obstructed (U) | 37 | 36 | 177 | 187 | 232 | 263 | 324 | 195 | 225 | 161 | 102 | 142 | 2,091 |
| No Plate (U) | 5 | 12 | 28 | 45 | 42 | 58 | 38 | 38 | 30 | 31 | 30 | 40 | 416 |
| Exposed (U) | - | 4 | 552 | 600 | 62 | 48 | 86 | 98 | 54 | 1 | 7 | 36 | 1,558 |
| Plate On Plate (U) | 34 | 30 | 246 | 92 | 154 | 227 | 94 | 109 | 207 | 177 | 138 | 87 | 1,595 |
| Clarity of Plate (C) | 270 | 255 | 421 | 453 | 663 | 755 | 270 | 175 | 153 | 133 | 95 | 217 | 3,696 |
| Dark Environment (C) | 19 | 28 | 649 | 9 | 348 | 81 | 8 | - | 4 | 5 | - | 2 | 1,153 |
| Video Not Usable (C) | - | - | 350 | 78 | 152 | 36 | 194 | 81 | 108 | 82 | 113 | 84 | 1,278 |
| Vehicle Not Recognizable (C) | - | - | 102 | - | - | 5 | 134 | 50 | 18 | 19 | 14 | 5 | 347 |
| Lane ID Error (C) | 1 | 32 | 227 | 197 | 190 | 43 | 29 | 18 | 26 | 17 | 15 | 13 | 836 |
| Equipment Malfunction (C) | 41 | 3 | 18 | 1 | 34 | 118 | 16 | 125 | 43 | 33 | 184 | 2 | 615 |
| Plate Damaged (U) | - | 1 | 1 | - | - | - | - | 1 | - | - | - | - | 4 |
| Temporary Tag (U) | 1 | 3 | 5 | 12 | 14 | 31 | 40 | 39 | 24 | 31 | 15 | 8 | 223 |
| Dealer Tag (U) | 1 | 2 | - | - | 1 | 1 | - | - | - | - | - | - | 5 |
| Below Threshold - Delay Time (U) | - | 1 | - | - | 15 | 178 | 188 | 158 | 188 | 174 | 115 | 131 | 1,148 |
| No Signal Head (U) | 4 | - | - | - | 9 | 6 | 13 | 8 | 8 | 8 | 4 | 4 | 64 |
| EXP Old Issue Date (U) | 95 | 282 | 328 | 368 | 379 | 843 | 553 | 381 | 138 | 299 | 436 | 539 | 4,891 |
| # Mailed | 732 | 505 | 1,746 | 2,387 | 2,188 | 2,728 | 2,109 | 2,332 | 2,358 | 2,238 | 1,594 | 1,664 | 22,761 |
| Violations | 1,584 | 1,502 | 6,301 | 6,133 | 6,228 | 7,256 | 6,039 | 5,346 | 5,272 | 4,571 | 3,625 | 3,437 | 57,294 |
| MAILED (issued)/Percent of Violations | 732 | 46% | 1,746 | 28% | 2,188 | 35% | 2,109 | 35% | 2,358 | 49% | 1,594 | 44% | 27,761 |
| ISSUANCE RATE (controllable) | 82% | 79% | 72% | 88% | 76% | 87% | 89% | 94% | 94% | 94% | 93% | 91% | 87% |
| Controllable Rejects | 331 | 315 | 1,767 | 736 | 1,387 | 1,076 | 851 | 449 | 362 | 288 | 421 | 323 | 8,399 |
| Un-Controllable Rejects | 521 | 333% | 2,788 | 2,803 | 2,673 | 3,452 | 3,279 | 2,895 | 2,592 | 2,044 | 1,610 | 1,450 | 28,424 |

V. CIVIL LIBERTIES

The citations issued by red light cameras raise fundamental due process concerns. The registered owner or lessee of the motor vehicle is held liable for the alleged violation unless he or she can prove that another person was actually driving the vehicle, which very easily could be the case. How many children drive cars registered to their parents? How many spouses drive cars registered under the name of their husband or wife? Guilt is presumed over innocence.

Further hampering due process is the timing of tickets. Presently, when one receives a traffic violation, a motorist is, of course, made immediately aware of the violation by the officer who provides the ticket. With red light cameras, however, tickets may be mailed out a full two weeks after the violation actually occurs, making a challenge to the allegation virtually impossible. And if it wasn't the registered owner/lessee driving the vehicle, that other person may not find out about the violation until even longer after it occurred. The more time in between the alleged violation and the actual ticketing, the more difficult it is to remember the circumstances surrounding the incident and to mount a defense to the ticket.

Others may never even receive the citation at all. The statute only specifies that the citations be mailed; no delivery confirmation is required. Thus, anyone who has recently moved and their change of address hasn't been processed yet or whose mail was delivered to the wrong address will be subject to increased fines or even a license suspension without having received the ticket in anything approaching a timely manner, if at all.

The only specified extenuating circumstance included in the 2005 law for "beating a ticket" is for drivers who proceeded into an intersection in order to yield to an ambulance. Although the statute also allows for the use of any other "defenses cognizable at law," it could very easily have included some more specific standards. In fact, earlier versions of the red light

camera bill had various defenses written into them. The ACLU had lobbied that these defenses be included in the bill that eventually passed, but to no avail.

Returning for a moment to the low percentage of violations that turn into citations, it is worth noting that this leaves a very high number of photographs or images that are not used to enforce a law, but are still held for a long period of time. The statute allows the images to be held for three months for non-violations, and for up to one year after resolution in which tickets were issued, after which time they must be destroyed. So currently, on average, 60% of these photos are unusable to prosecute a violation and are still stored for three months. Though the cameras are not focused in such a way to photograph the driver, they do contain other personal information including the license plate number of the vehicle.

While the invasion of privacy occasioned by this system may seem minor, any implementation of a system that leads to the widespread installation of cameras in a city cannot be ignored or minimized. As surveillance cameras of any kind become more ubiquitous, a further desensitization of privacy rights is inevitable.

Another protection expressly lacking from the current statutory language is a ban on the use of citations to determine points on a driver's license or for insurance purposes. Two versions of the legislation that did *not* pass included such language. The current statute, however, prohibits the practice only "until there is a final adjudication of the violation." The Providence Police Department has testified to the fact that it is not their practice to pass the citations along to insurance companies, but without a statutory ban there is little to really stop them from doing so.

Of course, the ACLU does not believe that cosmetic changes to the statute would solve the underlying problems with red light cameras. To the contrary. The civil liberties concerns only highlight the ultimate inappropriateness and inadequacy of this technology by municipalities.

CONCLUSION

As this report attempts to show, no compelling rationale has been offered for allowing for the continued use of red light cameras in the state by municipalities. Providence, the one city that has thus far made use of this technology, has not made any revenue from the system. It has not demonstrated that the cameras have reduced crashes or injuries at the intersections where the cameras have been installed; in fact, the limited data available suggests accidents have slightly *increased* in the two years since this experiment began. The cameras' efficiency rating does not meet specified Department of Transportation standards. The City has failed to adequately comply with reporting standards imposed by the 2005 law that first authorized use of the devices.

Such failures should not be rewarded, especially in light of the civil liberties incursions implicit in the implementation of a red light camera system. The General Assembly should reject efforts to repeal the statutory sunset clause, and should instead let this failed experiment come to a graceful end.⁸

⁸ This report was prepared by RI ACLU Program Coordinator Amy Vitale.