

## **An Informational Presentation to the House Transportation Committee on Red Light Cameras, November 30, 2011**

Mr. Chairman and members of the Committee, thanks for the opportunity to present information on this issue on behalf of the National Motorists Association (NMA).

With one exception, photo enforcement is not legal in Michigan under an opinion rendered by the Attorney General in 2007.

The one exception where photo enforcement is legal is at railroad crossings under Section 257.667a. I asked the State Police Traffic Services Section if there were any such installations and they said not to their knowledge. This is logical since the number of citations at a railroad crossing would be so low that the high cost of the cameras would create a huge financial loss for any government unit using them.

The NMA was very pleased to see the recent Public Information Research Group report that carefully documented the many ways that red light camera systems and contracts have been set up to maximize ticket revenue, even at the expense of reduced safety. Their report echoed many of the same areas of concern of using red light cameras primarily for profit that the NMA has reported on for many years.

Meghan Hess from PIRGIM is here to tell us a bit more about the PIRG report and why the organization decided to research this issue.

The National Motorists Association believes that photo enforcement with red light cameras and speed cameras is almost always about revenue, not safety, so we oppose photo enforcement on the grounds that enforcement primarily for revenue is always wrong. We believe these programs only produce significant amounts of revenue for the camera companies and their governmental business partners when the engineering parameters are done improperly in ways that can reduce safety overall and/or the enforcement procedures deliberately target high numbers of safe drivers for small technical violations that rarely affect safety on order to increase the revenue stream.

There are two main areas of abuse for financial profit with red light cameras. First, the yellow intervals are deliberately set too short for the actual 85<sup>th</sup> percentile approach speeds of free flowing traffic under good conditions. This is often done by timing the lights for the posted speed limits, when the government unit knows in advance that the posted limits are set well below the safety-optimum 85<sup>th</sup> percentile speeds of free flowing traffic under good conditions.

There is a widely accepted formula from the Institute of Transportation Engineers that makes the yellow intervals proportional to approach speeds, with a minimum of 3.0 seconds and a maximum of 6.0. It is easily understandable that the yellow needs to be longer for lights approached at 50 mph than lights approached at 30 mph.

Let me give you one specific example of how the abuses occur. If the posted speed limit is 35 mph but the actual 85<sup>th</sup> percentile approach speed is 45 mph, then the light will have a shorter yellow of 3.6 seconds timed for a false approach speed of 35 mph, instead of the longer and safer 4.3 seconds of yellow that is correct for 45 mph. This seemingly small difference of eight tenths of a second is all it takes to change the straight through violation rate from one too low to financially justify having a camera, to one with large numbers of violations to make it a very profitable operation.

The PIRG report notes that one camera vendor, American Traffic Solutions, had many paid lobbyists in Florida to help get their law passed to allow cameras to be used. One lobbyist was even the son of the mayor of Miami-Dade-County, a city in the process of developing a red light camera program. PIRG notes that Ron Regan was the House Speaker Pro Tem in 2010 who helped get the law passed to allow red light cameras and he now heads an advocacy group created and funded by American Traffic Solutions to work for camera installations nationwide. Then the Florida Department of Transportation recently changed their traffic light timing rules to allow timing yellows for the posted speed limits, regardless of how far below the actual approach speeds those posted limits are set. As you might guess, this has caused a proliferation of red light cameras programs in Florida, most of which will be quite profitable. I don't think it is too hard to fill in the blanks and connect all the dots here to conclude that safety was NOT the primary purpose in this chain of events in Florida.

Most red light camera tickets are given in the first second of red. But today's best practices set most traffic lights with a short cycle of one to two seconds of all-red. This means the drivers who enter in the first second of red will almost always clear the intersection before the cross traffic can arrive. So they present little or no risk to cause an angle or t-bone crash in the intersection. These are drivers who were trapped in what engineers call the dilemma zone, where the yellow is too short for the driver to safely stop but ends too soon to avoid entering a few tenths of a second into the red. THIS is the deliberate bad engineering that makes red light cameras so profitable.

Also note that this bad engineering making the yellows up to about a second too short is the main reason that so many red light cameras have caused the total accident rates to go UP, not down. Some drivers caught in the dilemma zone will panic brake to avoid the expensive camera tickets and drivers behind may not be able to stop in time, so the rear-end crash rate often goes up significantly.

What are the risks when red light cameras are installed with too-short yellows? This problem often sharply raises the accident risks. Unbiased research reports from many places in the US, Canada and Australia demonstrate increases in the accident rates when cameras were installed. My addenda has links to several of these reports.

And “unbiased” as we use it above means the reports were done by groups with no financial or job security conflicts of interest in the results of their research. To the NMA, this means any data from the camera companies is very suspect, if not outright excluded. We also believe that data from groups like the Insurance Institute for Highway Safety that strongly supports photo enforcement is suspect, since their member insurance companies often benefit from insurance surcharges when their policyholders get tickets. A University of South Florida report was sharply critical of the IIHS research methods about red light cameras and their conclusions about the safety benefits, or lack of benefits, for those camera programs.

What is the real solution if safety is the principal goal? For red light intersection safety, it is critical to get all the engineering parameters done to maximize safety. The most effective measure is to set the yellow intervals no shorter than the timing for the actual 85<sup>th</sup> percentile approach speeds of free flowing traffic under good conditions. This one item alone will usually cut the red light violation rate by 50% to 90% compared to a light with a too-short yellow, and the violations stay down. In the attached addenda, I have listed several examples of research to demonstrate this issue.

Several other items help like using backing plates behind lenses to minimize glare problems, using larger lenses on fast approaches, keeping lane lines painted well, trimming tree branches that obscure lights, using advance warning flashers for lights on fast approaches where the light is over a hill or around a curve, and something as simple as keeping the lenses clean. Almost no drivers deliberately run red lights and simple engineering or maintenance measures will prevent most violations.

Note that red light running is responsible for only about two percent of fatalities nationwide according to figures from the National Highway Traffic Safety Administration. And right on red turns cause only a few 100ths of one percent of fatalities, so issuing red light camera tickets for slow rolling right on red turns are almost entirely about revenue, not safety.

The PIRG report notes that governments have a risk in contracting for ticket cameras, in that they may not be able to get out of the contracts if the results are unsatisfactory or the citizens vote to remove them. In the worst example, ATS threatened to sue Houston for up to \$25 million dollars when the city ended the contract early due to a public vote to end the use of the red light cameras.

Speed cameras have even more obvious issues of potential abuse for revenue than red light cameras. Most main road posted speed limits should be set at the 85<sup>th</sup> percentile speed of free flowing traffic under good conditions or with the access point count method. But if a city simply sets their posted speed limits eight to fifteen mph below the 85<sup>th</sup> percentile speed to facilitate speeding ticket revenue collections and then adds a speed camera, most of the ticket recipients will be those at or near the 85<sup>th</sup> percentile speed, the very drivers that have the smallest risks to be in any sort of an accident.

If safety is the real goal for posted speed limits on our main roads, then most of them need to be posted at the 85<sup>th</sup> percentile speed of free flowing traffic under good conditions. This is the method favored by the State Police and MDOT because it usually produces the smoothest and safest traffic flow with the fewest accidents. But many Michigan cities have simply defied Public Law 85 for five full years now and retained posted limits set far below the safety optimum levels. Allowing speed cameras into the state would seriously compound the problem by giving massive financial incentives to retain the less safe artificially low limits.

The National Motorists Association has one final objection to photo enforcement. In most cases, the individual's right to due process is subverted and the vehicle owner is considered guilty until proven otherwise, a process that is backwards to the American Justice system. Most states make no attempt to identify the driver and the vehicle owner receives the ticket in the regular mail some days or weeks after the offense. There is no proof the ticket was received, a family may not be sure who was driving, the driver often has no idea they committed an offense because they never saw the light go red two tenths of a second before they entered the intersection, data about the accuracy of the machine is usually not available, no camera company employee or police officer saw the violation on site, and court rules usually prohibit discovery. All of these issues point to a system that is operated primarily for revenue, not for traffic safety, and we believe this is simply wrong.

I have one last point. We know of 23 cities where citizens could vote for or against ticket cameras. And real votes are FAR more definitive than polls. Cameras lost in 22 cities and they are listed in the addenda. The only win for cameras was this year in East Cleveland where the city sent off duty police officers in uniform in police cruisers to go door to door asking voters to retain the cameras. They used a kind of moral blackmail by telling voters that 36 police officers, 14 firefighters and at least 10 other workers would lose their jobs without the ticket camera revenue.

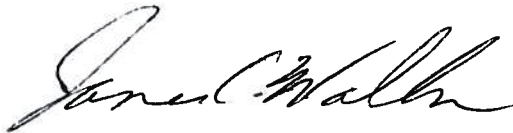
We think East Cleveland should be “the poster child” of what is wrong with photo enforcement programs. Cities or states become addicted to the revenue from cameras and, rather than seek lower violation rates and greater safety with better engineering, they have to keep the deliberately improper engineering in place to maintain the revenue stream.

At the moment, Michigan is free of red light and speed cameras due to the Attorney General’s opinion from 2007. Details of the AG opinion can be found at <http://www.thenewspaper.com/news/15/1582.asp>

But the National Motorists Association thinks a total ban on the use of photo enforcement by statute would be even safer to protect our citizens and visitors from the potential abuses of ticket cameras. We believe Michigan should join the fifteen states that already ban red light and/or speed cameras entirely.

Thanks and we would be happy to take any questions.

Respectfully submitted,



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## **Addenda and References**

**The PIRG report** is located at <http://www.uspirg.org/trafficcamreport>  
Below are some quotes from its executive summary:

Contracts between private camera vendors and cities can include payment incentives that put profit above traffic safety.

Privatized traffic enforcement system contracts that limit government discretion to set and enforce traffic regulations put the public at risk.

Contracts between camera vendors and cities can include penalties for early termination, or fail to provide provisions for early termination, leaving taxpayers on the hook even if the camera program fails to meet its objectives.

The privatized traffic law enforcement industry has amassed significant political clout that it uses to shape traffic safety nationwide.

A summary and a link to the **Texas Transportation Institute report presented to the 2004 Transportation Research Board** annual meeting on the effectiveness of longer yellows to reduce red light violations by at least 50% is here:  
<http://www.motorists.org/red-light-cameras/effect-yellow-timing>

### **Washington Post: Red Light Cameras Increase Accidents**

Accident data shows accidents doubled at intersections with red light cameras in Washington, D.C.; October 4, 2005

Summary at: <http://www.motorists.org/red-light-cameras/washington-post>

Full report: D.C. Red-Light Cameras Fail to Reduce Accidents, Washington Post, 10/4/2005

<http://www.washingtonpost.com/wp-dyn/content/article/2005/10/03/AR2005100301844.html>

## **Investigation of Crash Risk Reduction Resulting From Red-Light Cameras in Small Urban Areas, July 2004**

The results do not support the view that red light cameras reduce crashes. Instead, we find that RLCs are associated with higher levels of many types and severity categories of crashes.

Full report at

[http://www.motorists.org/photoenforce/Burkey\\_Obeng\\_Updated\\_Report\\_2004.pdf](http://www.motorists.org/photoenforce/Burkey_Obeng_Updated_Report_2004.pdf)

## **Red Light Running Cameras: Would Crashes, Injuries and Automobile Insurance Rates Increase If They Are Used in Florida?**

University of South Florida, College of Public Health, Tampa, FL

Running a red light can cause severe traffic crashes especially when one vehicle runs into the side of another. Red light cameras photograph violators who are sent traffic tickets by mail. Intuitively, cameras appear to be a good idea. However, comprehensive studies conclude cameras actually increase crashes and injuries, providing a safety argument not to install them.

Full report at <http://health.usf.edu/NR/rdonlyres/C1702850-8716-4C2D-8EEB-15A2A741061A/0/2008pp001008OrbanetalRedLightPaperMarch72008formatted.pdf>

## **Virginia DOT Study on Red-Light Cameras**

This was a study by the Virginia Department of Transportation to support the continued use of cameras in the state. It was presented in December 2004. However, the study actually shows red light camera intersections to be more dangerous. The study showed a definite increase in rear-end crashes and only a possible decrease in angle crashes. It also showed an increase in total injury crashes.

Full report available at: [www.thenewspaper.com/rlc/docs/05-vdot.pdf](http://www.thenewspaper.com/rlc/docs/05-vdot.pdf)

**A Long Term Study of Red-Light Cameras and Accidents, David Andreassen  
Australian Road Research Board. February, 1995**

There has been no demonstrated value of the RLC as an effective countermeasure.

Full report available at [www.thenewspaper.com/rlc/docs/95aussie.pdf](http://www.thenewspaper.com/rlc/docs/95aussie.pdf)

**Evaluation of the Red-Light-Camera-Enforcement Pilot Project, Final Report  
December 2003, Ontario Ministry of Transportation**

After evaluating the performance of red light cameras at 68 sites over two years, the report concluded that jurisdictions using photo enforcement experienced an overall increase in property damage accidents of 18.5 percent coupled with a 4.9 percent increase in fatal and injury rear-end collisions. Rear-end collisions involving property damage alone jumped 49.9 percent.

Full report available at [www.thenewspaper.com/rlc/docs/2003-ontario.pdf](http://www.thenewspaper.com/rlc/docs/2003-ontario.pdf)

**Longer Yellow Lights Dramatically Decrease Violations**

**Loma Linda, California** Straight through violations drop 92 percent after yellow lights are extended by one second

Full story at [www.thenewspaper.com/news/30/3055.asp](http://www.thenewspaper.com/news/30/3055.asp)

**San Carlos, California** Engineering solutions and an extra second of yellow duration made red-light cameras a money loser

Full story at [www.thenewspaper.com/news/31/3110.asp](http://www.thenewspaper.com/news/31/3110.asp)

**Springfield, Ohio**, Adding one extra second to its yellow lights means less tickets for Springfield

Full story at [www.wdtn.com/dpp/news/local/springfield/Longer-yellow-light-means-less-tickets](http://www.wdtn.com/dpp/news/local/springfield/Longer-yellow-light-means-less-tickets)



## **Fifteen States that ban red light and/or speed camera enforcement**

Alaska, Minnesota, New Hampshire, Arkansas, Mississippi, South Carolina, Utah, Indiana, Montana, Maine, Nebraska, West Virginia, Michigan, Nevada, Wisconsin

## **Twenty Two Cities That Voted Against Red Light and/or Speed Cameras**

Anchorage, AK Cincinnati, OH Steubenville, OH Arlington, TX Heath, OH Sulphur, LA College Station, TX Batavia, IL Sykesville, MD Peoria, AZ Chillicothe, OH Garfield Heights, OH Dayton, TX Monroe, WA Baytown, TX Longview, WA South Euclid, OH Houston, TX Mukilteo, WA Bellingham, WA Albuquerque, NM Anaheim, CA  
Arlington, TX (voted down "traffic management cameras" that could be used as ticket cameras)

Details and notes on both cities and states at [www.thenewspaper.com](http://www.thenewspaper.com)

## **How One City Achieved a Vote For Red Light Cameras With Drastic Measures** (to our knowledge, the only time cameras have survived a public vote)

November 01, 2011

East Cleveland Fate Hinges on Red Light Camera Vote

Excerpt:

In East Cleveland, city leaders went to the most extreme lengths of any contest to date to badger voters into supporting cameras using official resources. Off-duty police officers, in uniform and with their police cruisers parked on the curb, were ordered to go door-to-door to convince residents to vote to save the cameras. Last month, Mayor Gary Norton mailed layoff notices to thirty-six cops and fourteen firefighters, claiming the city would have to fire them if it lost the photo ticketing revenue. The strong-arm tactics worked, as the city picked up 54 percent of the vote.

Full report at: [www.thenewspaper.com/news/36/3634.asp](http://www.thenewspaper.com/news/36/3634.asp)