Photo Enforcement

Safety
Legislation
Existing Installations
Policy
Issues
Safety

Engineering
Enforcement
Education
Safety

Engineering Enforcement Education

Photo Enforcement
FACT:
Photo Enforcement is a tool that has been proven to improve compliance with laws and therefore improve safety.
2010 Highway Safety Manual
Red Light Enforcement
Electronic Speed Enforcement
Table 14-28, Potential Crash Effects for Installing Red-Light Cameras at Urban Intersections

<table>
<thead>
<tr>
<th>Crash Modification Factor, CMF</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-angle and left-turn opposite direction crashes</td>
<td></td>
</tr>
<tr>
<td>all severities</td>
<td>injury</td>
</tr>
<tr>
<td>0.74 (-26%)</td>
<td>0.84 (-16%)</td>
</tr>
</tbody>
</table>
Table 14-28, Potential Crash Effects for Installing Red-Light Cameras at Urban Intersections

<table>
<thead>
<tr>
<th>Crash Modification Factor, CMF</th>
<th>Rear-end crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>all severities</td>
<td>injury</td>
</tr>
<tr>
<td>1.18 (+18%)</td>
<td>1.24 (+24%)</td>
</tr>
</tbody>
</table>
Table 17-5, Potential Crash Effects of Automated Speed Enforcement

<table>
<thead>
<tr>
<th>Crash Modification Factor, CMF</th>
</tr>
</thead>
<tbody>
<tr>
<td>All types of crashes</td>
</tr>
<tr>
<td>injury</td>
</tr>
<tr>
<td>0.83 (-17%)</td>
</tr>
</tbody>
</table>
Safety

Angle Crashes

Rear End Crashes
Legislation
Legislation
RS 32:365. Television

B. Law enforcement officers of the state or any political subdivision thereof shall be authorized to operate video recording equipment and monitors in their law enforcement vehicles while in the performance of their duties. However, this provision shall not be construed to allow law enforcement officers to record vehicles in violation of traffic safety laws with citations for such violations to be mailed to the alleged violator at a later date.
2001; HB 1591 – Municipalities – failed to pass House
2001; SB 1059 – Municipalities – failed
2004; HB 1078 – Municipalities – failed to pass House
2004; SB 612 – Municipalities >50,000 pop – died in House
2005; SB 168 – for New Orleans – withdrawn
2005; HB 368 – for New Orleans – died in House
2008, SB 396 – Municipalities – failed to pass Senate
Photo Enforcement
2009-2010 Legislation

2009; HB 254 – Authorize – failed
2009; HB 480 – Prohibit – failed
2010; HB 160 & 859 – Prohibit – failed
2010; HB 374 – Limit fines – failed
2010; HB 383 – Require popular vote – failed
2010; HB 1149 – DOTD to install cameras at Rail Crossings – Failed in House
2010; HR 140 – Directs that DOTD policy apply to all photo enforcement – passed as resolution
HR 140 of 2010

Directs local governing authorities of each parish or municipality to adopt and implement the DOTD statewide policy for the use of electronic traffic enforcement systems.
Existing Installations Approved by DOTD

Lafayette – 10 intersections installed 2007-08
Baton Rouge – 15 intersections installed 2008
Future Installations

Sept 2007 - basic policy (2-pages)
April 2009 - tolerances
In July 2009 DOTD asked local government’s input on a policy to provide statewide consistency.
March 2010 - expanded policy (8-pages)
June 2010 – agreed to revised policy
Signed December 2, 2010
New permits allowed immediately
Speed van permits required by March 1, 2011
Negotiated between DOTD and Louisiana Municipal Association (Lafayette and Baton Rouge)
Policy Includes

1. Policy Details (cover +9 pages)
2. Process Flowchart
3. Potential Locations Forms
4. Example report
5. FHWA red light running solutions
6. Checklist of counter measurers
7. Permit Forms
MEMORANDUM

To: Mr. Rhett Desselle, PE
   Assistant Secretary of Operations

From: Mr. Richard Savoie, PE
      DOTD Chief Engineer

Subject: Photo Enforcement Permits

Date: December 2, 2010

The purpose of this memorandum is to inform you of recent revisions to the permit policy for the installation of photo enforcement systems on state highways. It has been determined that it would be in the best interest of the safety of our highways for the Department to issue permits to local governments for the installation and operation of photo enforcement equipment in the state owned highway right-of-way.

Through the attached policy, the Department will regulate the site selection, installation, and operation of these permits to ensure that the photo enforcement systems function to improve safety. The policy was developed as a joint effort between the Department and members of the Louisiana Municipal Association in order to provide statewide consistency in the use of photo enforcement.

This policy replaces all other polices and memorandums issued on this subject. DOTD will begin accepting potential locations on December 3, 2010. Beginning March 1, 2011 DOTD and State Police will begin enforcing all Traffic Enforcement Systems installed or located on state right-of-way.

This memorandum and policy will be attached to all new permits and become part of the permit conditions. Copies of this policy will be forwarded to all districts. Copies will also be sent to the cities of Lafayette and Baton Rouge, which hold existing photo enforcement permits.

PAA
Attachment

cc: Louisiana Municipal Association
    Secretary Sherri LeBas
    Each District Administrator
    Each District Traffic Operations Engineer
    Each District Permit Specialist
MEMORANDUM
To: Mr. Rhett Desselle, PE
   Assistant Secretary of Operations
From: Mr. Richard Savoie, PE
       DOTD Chief Engineer
Subject: Photo Enforcement Permits
Date: December 2, 2010

The purpose of this memorandum is to inform you of recent revisions to the permit policy for the installation of photo enforcement systems on state highways. It has been determined that it would be in the best interest of the safety of our highways for the Department to issue permits to local governments for the installation and operation of photo enforcement equipment in the state owned highway right-of-way.

Through the attached policy, the Department will regulate the site selection, installation, and operation of these permits to ensure that the photo enforcement systems function to improve safety. The policy was developed as a joint effort between the Department and members of the Louisiana Municipal Association in order to provide statewide consistency in the use of photo enforcement.

This policy replaces all other polices and memorandums issued on this subject. DOTD will begin accepting potential locations on December 3, 2010. Beginning March 1, 2011 DOTD and State Police will begin enforcing all Traffic Enforcement Systems installed or located on state rights of way.

This memorandum and policy will be attached to all new permits and become part of the permit conditions. Copies of this policy will be forwarded to all districts. Copies will also be sent to the cities of Lafayette and Baton Rouge, which hold existing photo enforcement permits.

Through the attached policy, the Department will regulate the site selection, installation, and operation of these permits to ensure that the photo enforcement systems function to improve safety. The policy was developed as a joint effort between the Department and members of the Louisiana Municipal Association in order to provide statewide consistency in the use of photo enforcement.
Process Flow Chart

Louisiana Department of Transportation and Development
Traffic Enforcement Systems
Permitting Process Flow Chart

1. Local Government submits Traffic Enforcement Systems Permit Request package to the District office

2. District reviews initial request and completes the initial Checklist

3. Does location meet LADOTD’s Traffic Enforcement Systems Policy?
   - Yes
   - No

4. District sends letter to the local government requesting the complete submittal package

5. Local government submits completed package to the District office

6. District office reviews and completes the Traffic Enforcement Systems Permit Requirement Checklist

7. Is the permit recommended for approval?
   - Yes
   - No

8. District sends the signed Traffic Enforcement Systems Permit Requirement Checklist along with the permit package to the HQ Traffic Engineering Division

9. HQ Traffic Engineering Division reviews permit package

10. Is the permit recommended for approval?
    - Yes
    - No

11. HQ Traffic Engineering Division sends the checklist, permit form and permit package to the local government to sign. Local government returns signed permit to HQ TE Division.

12. HQ Traffic Engineering Division sends the checklist, signed permit and permit package to the HQ permit section

13. HQ permit section reviews permit package

14. Is the permit issued?
    - Yes
    - No

15. HQ permit section approves permit and sends copies to the permits, Traffic Engineering and the District office
Process Flow Chart

Local Government submits Traffic Enforcement Systems Permit Request package to the District office

District reviews initial request and completes the Initial Checklist

15 days

Does location meet LADOTD’s Traffic Enforcement Systems Policy?

no

yes

District sends letter to the local government requesting the complete submittal package

Local government submits completed package to the District office
## Red Light Running Countermeasures

<table>
<thead>
<tr>
<th>Countermeasure Attempted</th>
<th>Explanation</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Signal Visibility</td>
<td>□ Placement and number of signal heads</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Size of signal display</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Line of sight</td>
<td></td>
</tr>
<tr>
<td>Increase Likelihood of Stopping</td>
<td>□ SIGNAL AHEAD signs</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Advanced warning Flashers</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Rumble strips</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Left turn signal sign</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Pavement surface condition</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Pavement markings</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Loop detector placement</td>
<td>□</td>
</tr>
<tr>
<td>Eliminate Need to Stop</td>
<td>□ Unwarranted signals</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Roundabout intersection design</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Flash mode</td>
<td>□</td>
</tr>
<tr>
<td>Improve Signal Conspicuity</td>
<td>□ Redundancy</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ LEDs signal lenses</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Back plates</td>
<td>□</td>
</tr>
<tr>
<td>Address Intentional Violations</td>
<td>□ Signal optimization</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Signal cycle length</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Yellow change interval</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ All Red clearance interval</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>□ Dilemma zone protection</td>
<td>□</td>
</tr>
</tbody>
</table>
1. Definitions
   • Red Light Running violations are measured at stop bar.

2. Purpose
   • to enhance safety
   • grandfather for 18 months
3. **Permits**
   - Professional Engineer
   - Apply at District
   - Copy of ordinance
   - 5 turn/angle crashes in 12 months
   - Speed limit verified
3. Permits (continued)

- **Speed Tolerances**
  - $\leq 30$ mph: +6 mph
  - $35 \leq$ & $\leq 40$ mph: +8 mph
  - $\geq 45$: +10 mph

- **School Zone Speed Tolerances**
  - $45$ mph: +6 mph
  - $50 \leq$ & $\leq 55$ mph: +8 mph
  - $> 55$ mph: NA
3. Permits (continued)
   • Speed Study
   • ITE Clearance Interval
   • Plans - connection to signal
   • Signing –
     Speed limit signs
     Radar Speed Signs
3. Permits (continued)
   • Countermeasures tried
   • Testing
   • Reporting
   Annually
   Crashes (within 200 ft of stop bar)
4. **System Operation**
   - Repairs
   - sharing video

5. **Removal**
   - failure to comply with permit
   - increase (verified) of injury crashes
Policy Issues

1. Yellow Clearance
2. Parking on Shoulder
3. Radar Speed Signs
4. Five Crash in 12 Months
# Calculated Clearance

## Clearance Formulas:

<table>
<thead>
<tr>
<th>Based on Traffic Engineering Handbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow Clearance</td>
</tr>
<tr>
<td>All Red Clearance</td>
</tr>
</tbody>
</table>

\[
CP = t + \left[ \frac{V}{(2a + 64.6g)} \right] + \left[ \frac{(W + L)}{V} \right]
\]

where:

- \( CP \) = non-dilemma change period (Change + Clearance interval) (in sec)
- \( t \) = perception—reaction time in seconds (nominally 1 sec)
- \( V \) = approach speed in ft/sec
- \( g \) = percent grade (positive for upgrade, negative for downgrade)
- \( a \) = deceleration rate, typically 10ft/sec\(^2\)
- \( W \) = distance from trailing edge of stop bar to far side of intersection extension of curb lines of cross street (in feet)
- \( L \) = length of vehicle in feet (typical 20 ft)
## Statewide Crashes
### 2005-01-01 to 2010-12-31
**Event = T-Parked Motor Vehicle**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tot Acc</th>
<th>Fatal Acc</th>
<th>Injury Acc</th>
<th>PDO Acc</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1017</td>
<td>10</td>
<td>279</td>
<td>728</td>
</tr>
<tr>
<td>2006</td>
<td>993</td>
<td>9</td>
<td>271</td>
<td>713</td>
</tr>
<tr>
<td>2007</td>
<td>987</td>
<td>4</td>
<td>280</td>
<td>703</td>
</tr>
<tr>
<td>2008</td>
<td>942</td>
<td>9</td>
<td>281</td>
<td>652</td>
</tr>
<tr>
<td>2009</td>
<td>909</td>
<td>6</td>
<td>231</td>
<td>672</td>
</tr>
<tr>
<td>2010</td>
<td>679</td>
<td>4</td>
<td>167</td>
<td>508</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5527</strong></td>
<td><strong>42</strong></td>
<td><strong>1509</strong></td>
<td><strong>3976</strong></td>
</tr>
</tbody>
</table>

**CONFIDENTIAL INFORMATION** - This document is exempt from discovery or admission under 23 U.S.C. 409. Contact the Traffic Safety Office at (225)379-1871 before releasing any information.
Radar Speed Signs

Speed display trailers typically cost $5,500 to $20,000, but can be rented for approximately $50 a week. Mounted speed displays typically cost $2,500 to $7,000.
5 Crashes in 12 Months

331 intersections
Photo Enforcement Policy
What’s Next?

Discuss issues with LMA
Delay requirement for 3 months
Meet with vendors
Outreach to locals
Webinar, conferences, etc
School bus cameras OK’d to record other motorists' wrong moves

Published: Thursday, March 18, 2010, 9:22 PM  Updated: Thursday, March 18, 2010, 9:34 PM

By Bruce Eggler, The Times-Picayune

Follow

Without discussion, the East Baton Rouge Parish School Board agreed unanimously Thursday to seek a firm to install cameras on school buses to try to catch motorists who endanger children by speeding through bus stops.

Thirty-five of the roughly 650 buses in the school system's fleet will test the new cameras, at an estimated cost of $7,000 per bus.
Thank you

Policy is available at: dotd.la.gov/highways/traffic/