Speeding: Problem Identification

Crash Analysis

The Peachtree City Police Department (PCPD) is pleased to report another year of exceptionally low speed-related collisions and injuries.

2014 Total Roadway Collisions: 791  Speed Related Collisions: 18 = 2.2%
2014 Total Injury Collisions: 154  Speed Related Injury Collisions: 7 = 4.5%

Despite an already excellent rate, one of PCPD’s formal “goals” is to reduce speed related crashes and injuries. As such, an analysis on speed related crashes is required on at least a quarterly basis by PCPD to identify problems. This includes examination of trends in locations, times, driver demographic, and other factors. When a trend is identified (which is infrequent due to the low number of speed crashes), enforcement, engineering and education efforts are targeted accordingly. Below is an example from the Speed section of the Traffic Safety Officer’s quarterly crash analysis for the 2nd quarter of 2014.

As with the example above, the analysis typically does not find more than two speed related crashes occurred within the same hour of the day or any particular trends by location or age. As such, PCPD continues the problem identification process through input from the community, collaboration with the Engineering Department, and routinely conducting proactive speed surveys.

Community / Engineering Input:

PCPD uses an Online Traffic Complaint web form as a primary means of collecting external complaints. During 2014 PCPD conducted 12 speed surveys in response to complaints by citizens, primarily in residential areas. We use two types of “stealth” speed monitors to collect data on motorists in such areas. The results of these surveys are summarized in a table on Page 2. The results mostly indicate very reasonable compliance levels in those areas. These tools are used to identify problems that require development of specific plans and allocation of resources, or the lack of a problem and the need for remediation of community perception.

PCPD consistently works closely with the City Engineering Department and the Georgia Department of Transportation. Previous ventures with them have included major changes to local school zones, modifications in speed/zone signage to be Manual on Uniform Control Devices (MUTCD) compliant, and joint surveys to adjust highway speed limits. Due to these long-standing, proactive joint efforts, it is very infrequent for external studies to be required in Peachtree City. During 2014, PCPD received one speed study from the Georgia DOT. It was for a stretch of Hwy 74 and the results indicated no need for corrective action or adjustments to speed limits.
The below chart summarizes speed studies conducted by PCPD in response to citizen complaints in 2014. Even in complaint areas, Peachtree City consistently identifies good compliance. Enforcement and education are directed accordingly at those with issues.

<table>
<thead>
<tr>
<th>Start Date</th>
<th>Location</th>
<th>Posted Speed</th>
<th>Avg vs Posted</th>
<th>85% vs Posted</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/08/2014</td>
<td>Rockaway Rd @ Somerby</td>
<td>45</td>
<td>+2</td>
<td>+7</td>
</tr>
<tr>
<td>01/21/2014</td>
<td>Sumner Rd @ Summer Plc</td>
<td>30</td>
<td>+5</td>
<td>+12</td>
</tr>
<tr>
<td>01/31/2014</td>
<td>Waterwood Bend @ Postwood Turn</td>
<td>30</td>
<td>+2</td>
<td>+7</td>
</tr>
<tr>
<td>02/27/2014</td>
<td>Revolution Dr</td>
<td>30</td>
<td>-12</td>
<td>-6</td>
</tr>
<tr>
<td>03/29/2014</td>
<td>N. Fairfield Dr @ Everdale</td>
<td>30</td>
<td>-10</td>
<td>-6</td>
</tr>
<tr>
<td>04/20/2014</td>
<td>Belvedere Ln @ Belvedere Grn</td>
<td>30</td>
<td>-9</td>
<td>-2</td>
</tr>
<tr>
<td>07/18/2014</td>
<td>Montclair @ Loxley</td>
<td>30</td>
<td>-5</td>
<td>+1</td>
</tr>
<tr>
<td>07/28/2014</td>
<td>Robinson Rd @ Holly Grove Rd</td>
<td>40</td>
<td>-15</td>
<td>0</td>
</tr>
<tr>
<td>09/24/2014</td>
<td>Shadowood Ln @ 120 Shadowood Ln</td>
<td>30</td>
<td>-8</td>
<td>-2</td>
</tr>
<tr>
<td>10/15/2014</td>
<td>Smokerise Pt @ Sumner Rd</td>
<td>30</td>
<td>+2</td>
<td>+8</td>
</tr>
<tr>
<td>10/19/2014</td>
<td>Smokerise Pt @ Hidden Springs Ln</td>
<td>30</td>
<td>-4</td>
<td>+7</td>
</tr>
<tr>
<td>12/15/2014</td>
<td>Waterwood Bend @ Atwater Pk</td>
<td>30</td>
<td>-5</td>
<td>+1</td>
</tr>
</tbody>
</table>

In addition to these surveys, the Engineering Department conducted two volume surveys and 4 speed and volume surveys during 2014. They also assisted with two follow-up speed surveys on one validated complaint to help check for improvement. Engineering and PCPD work closely together to take a joint approach to any such issues in the city.

PCPD proactively conducts stealth speed surveys at pre-determined points in the city to check compliance rates and provide for early identification of any emerging issues. These surveys are targeted on major arteries and thoroughfares at the points where they are most prone to speed violations due to roadway design, visibility, etc. The locations chosen are intended to give us information about what motorists are doing under the most unrestricted circumstances and in areas that are likely to be indicative of subsequent behavior on the collector streets departing therefrom. Follow up surveys are completed routinely throughout the year (roughly on a quarterly basis) to check for changes and to identify effectiveness of any efforts deployed to correct previously identified issues.

Right: A sample of some of the data collected in 2014 from proactive speed surveys.
Speeding: Policy & Planning

PCPD has a 29 page Standard Operating Procedure that covers Traffic Enforcement, Control, Administration, and Accident Investigation. The policy addresses the following areas:

- Speeding violations as a priority enforcement area
- Specific guidance on use of selective traffic enforcement, including speed enforcement, to “…assist in furthering a reduction in traffic collisions and gain voluntary compliance with speed limits…”
- Written directives on use of speed detection equipment, including mandatory calibration testing.
- RADAR/LIDAR training being available to all officers and these certifications are, by policy, a priority for training as soon as possible in their career.
- Prioritizing speed enforcement in areas where collisions are prevalent and complaints from citizens regarding speeding have been received.

The second attachment to the Speeding section of this submission will include several pictures of the policy to document the above statements.

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**Goal 4:** Reduce speed-related crashes by 5%

**Objective 1:** Do Quarterly analyses of speed-related crashes to identify trends, locations, times, and driver attributes.

**Objective 2:** Conduct Public Information and Education efforts through public events, social media, press releases, and other outlets. Whenever applicable, such efforts should target groups identified by data analyses as at-risk for this violation. Such efforts will include, when applicable, participation in state and national crackdown campaigns.

**Objective 3:** Conduct targeted enforcement in areas identified from crash analyses and speed surveys as being at-risk for speed-related crashes or frequent speed violations; and otherwise maintain High Visibility Enforcement efforts to foster an effective environment of deterrence and voluntary compliance.

**Objective 4:** Maintain 100% of field officers certified to operate RADAR and continue to increase the number of officers certified to operate LIDAR.

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**Planning**

Left: PCPD’s Goals and Objectives formalize a plan that includes reducing speed related crashes through problem identification, targeted PI&E, directed enforcement, High Visibility Enforcement, and officer education.
Speeding: Planning

PCPD also uses survey data to isolate locations where a significant number of violators are speeding enough to warrant enforcement, and what times those violations are predominantly occurring. This information is distributed in directed traffic enforcement assignments in order to make the best use of resources. Below are examples of reports used to plan locations and times for enforcement.

Rather than using “memo on the podium” type orders for enforcement plans, PCPD maintains a “Directed Traffic Enforcement Calendar”. This Outlook based calendar is accessible by all personnel and allows for flexible planning, dynamic schedule updates, and immediate documentation of feedback from officers in the field. This calendar is the core of the agency’s traffic planning. Traffic Supervisors update the calendar routinely with assignments containing specific locations and times in need of enforcement, top collision locations, traffic complaints, and other relevant information. Supervisors are instructed to prioritize these assignments with their officers and officers are instructed to check the calendar on a daily basis for issues in their assigned areas.

Supervisors check for follow up on assignments by reviewing officers’ required Daily Activity Report (DAR). In addition to a line-by-line accounting of time allocation throughout the day, the DAR contains a field for documenting “Directed Traffic Enforcement Actions”. Follow up is also conducted by requiring officers to post updates in traffic complaint entries to document their efforts and results. Results are often used to update plans for future enforcement in that area. For example, if several officers monitor an area and observe no violations, the calendar may be updated to shorten or end the assignment.

Planning also included ongoing monitoring of officer training to ensure availability of resources to sustain effective enforcement programs, and conducting Public Information and Education efforts. Information on these efforts are detailed later in this presentation.
Speeding: Planning

An example day on the Directed Traffic Enforcement calendar is pictured below. This entry shows several examples of active traffic complaints (TC).

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
</table>
| Mar 26, 2014 | From Jan 13:  
* TE: TC; Speeding Vehicles; Waterwood Bend/Booth School Zone  
* From Feb 2:  
* From Feb 23:  
* From Feb 29:  
* From Mar 11:  
* From Mar 12:  
* From Mar 21:  
* From Mar 21: |

Below is an example calendar item. This examples includes some narrative assignment from the Traffic Sergeant, information received from the Engineering Department on a survey they assisted with, text from an Online Traffic Complaint received from a neighborhood resident, documentation of grade measurement to ensure speed detection equipment is authorized (< 7%), documentation of officer follow ups, and notes about a SMART Speed Sign Trailer being deployed and checked. 

The city engineer has completed a speed survey and it indicates there is a problem in this neighborhood with speeding vehicles. We need to educate those drivers. Please make this a priority because when you guys address a problem, it gets solved. Document actions below please or email me any suggestions. See study below.

FYI another complaint recently came in:  
bill and shelia bach  
phone ~ 6784919242  
2ndphone ~ ~  
submit_by ~ shellabach@comcast.net  
location ~ in Stoney Brook Plantation on Vanderwall!!!  
Excessive speeding and lack of regard for children, dogs... I have brought up for past year and still nothing done!  
Problem_Described ~ Excessive speeding in front our house on Vanderwall-sure other streets in n- hood as well, but we have young girls and a new dog and several times there has "almost" been an injury due to lack of slowing down when seeing children or dogs, and in general every day all day excessive speeding-would like to see speed bumps as change in speed limit will do nothing!!!  
Submission date ~ 11-3-2014 11:08:28  
11/3/14 3223: 1250-1345. No violations. Grade measured  
11/5/14 3223: 1400-1500. Fastest speed NB 33mph school bus  
11/7/14 3225: SMART trailer deployed.  
11/14/14 3225: SMART trailer working properly.  
11/11/14 3214: 1730-1750. NO violations. Minimal traffic
100% of PCPD officers received training on Speed Enforcement in 2014.

3 Officers received training/certification in RADAR - all other full-year employees were previously certified (some newly hired officers still pending at end of year).

3 Officers received training/certification in LIDAR - 24 other officers were previously certified.

All officers are required to complete comprehensive traffic safety course delivered through PowerDMS. The course contained several Speed Awareness training materials and a comprehension quiz to ensure officers retained the information. Example training materials and quiz questions are below. This is an annual requirement for all officers.

   - (a) Each state, county, municipal, or campus law enforcement officer using a radar device shall test the device for accuracy and record and maintain the results of the test at the beginning and end of each duty tour. Each such test shall be made in accordance with the manufacturer's recommended procedure. Any radar unit not meeting the manufacturer's minimum accuracy requirements shall be removed from service and thereafter shall not be used by the state, county, municipal, or campus law enforcement agency until it has been serviced, calibrated, and recertified by a technician with the qualifications specified in Code Section 40-14-4.

2. Emphasis on importance of calibration

3. O.C.G.A. § 40-14-6: Warning signs required
   - (a) Each county, municipality, college, and university using speed detection devices shall erect signs on every highway which crosses a county boundary, or the boundary of the college or university, that point on the highway which intersects the county boundary, or the boundary of the college or university, that point on the highway which intersects the college or university, and shall display a notice indicating that speed detection devices are being employed. No such warning signs were erected pursuant to this Code Section.

4. O.C.G.A. § 40-14-15: Radar speed enforcement
   - (4) Each county, municipal, or campus law enforcement officer shall be trained in the use of speed enforcement techniques, including the use of speed detection devices, and shall be capable of providing the necessary training to other officers.

5. Q. What is the purpose of speed detection devices?
   - A. Speed detection devices are used to measure the speed of vehicles on the road to enforce traffic laws and ensure driver safety.

6. Q. How do you maintain the accuracy of speed detection devices?
   - A. To maintain the accuracy of speed detection devices, they must be calibrated and tested regularly according to manufacturer's recommendations.

7. Q. What is the speed limit on this road?
   - A. The speed limit on this road is 25 mph.

8. Q. What is the maximum speed at which a speed detection device can operate?
   - A. The maximum speed at which a speed detection device can operate is 80 mph.

9. Q. How do you ensure the reliability of speed detection devices?
   - A. To ensure the reliability of speed detection devices, officers must conduct accuracy checks on the devices regularly and maintain proper documentation of the results.

10. Q. What is the primary purpose of using speed detection devices?
    - A. The primary purpose of using speed detection devices is to enforce traffic laws and maintain traffic safety on the roads.

11. Q. What are the consequences for speeding?
    - A. Speeding can lead to fines, points on the driving record, and in some cases, the吊销 of a driver's license.

12. Q. How do speed detection devices differ from speed enforcement techniques?
    - A. Speed detection devices are used to measure speed, while speed enforcement techniques involve using these devices to enforce speed limits and traffic laws.
Speeding: Public Information & Education

Peachtree City strives to maintain outstanding voluntary compliance rates and low speed related crash rates by educating the community on the dangers of speeding.

Traffic safety education is taught in all the public schools in the city. Education focusing on Speed is included in the lessons taught in the Middle School and High School in Peachtree City as part of the basic curriculum taught by our School Resource Officers. Approximately 450 High School students participated in the Alcohol and Drug Awareness Program (ADAP) course taught by the School Resource Officer (SRO) throughout 2014, and a segment of that class focuses on speeding violations and how speed is a contributing factor for accidents.

At the middle school level, two 8th grade classes were taught about collision education. Students were provided a math equation and instructed on how to determine the speed, distance and stopping time, in order to understand the effect of speed on closing distances and collisions. By explaining the effects of speed on collision prevention through math, the students were better able to visualize the importance of maintaining a safe speed when operating a vehicle.

Officers also taught a group of 25 students during the 2014 Junior Police Academy the reality of speed and closing times by showing them speed measurements and closing times with help of a laser speed detection device from a safe location on the side of a highway. Several groups were contacted on various community relations projects throughout the year, including requests from Boy Scouts, Girl Scouts, local churches, and private schools. Most of these projects are handled by members of PCPD’s traffic section, and they prioritize education on traffic safety, including speeding, whenever possible.

Public education was directed distinctly at this issue of operating motorized carts at a safe speed by having one of the traffic officers construct and deliver a motorized cart operator safety course to all eighth graders at the local middle school. This is a major point of concern in Peachtree City as over 11,500 carts are owned and operated by residents on 110 miles of multi-use paths within the city limits, in addition to other roadways. Peachtree City Ordinances allow 12-year-olds to operate motorized carts with supervision, so delivering curriculum to them about the dangers of speeding is expected to help improve the quality of their driving decisions both on motorized carts, and as future drivers of cars. A video presentation was also included on morning announcements to all high school students, which included the SRO discussing the dangers of speed and providing pictures and descriptions of several speed-related motorized cart collisions that resulted in serious injuries. This was done in October, before Homecoming.

Right: High School SRO in the speed education video shown in October 2014.
PCPD uses press releases to local media outlets, notices in the City Newsletter (over 11,000 subscribers), and posts to our Facebook and Twitter accounts to promote public education regarding the dangers of speeding and current enforcement initiatives.

PCPD also distributes a variety of educational pamphlets at road checks and public events. Before Halloween 2014 officers gave out trick-or-treat and goodie bags to parents and kids at every elementary school and at a large road check. A flyer about Georgia’s Super Speeder Law was included among the many items inside.

PCPD has two Variable Message Sign trailers constantly deployed around the city on major roads with traffic safety messages, including warnings about speed violations and to slow down. Additionally, PCPD deploys a small RADAR trailer to increase public awareness of speed limits and actual speeds being traveled in areas where education is needed.
Speeding: Enforcement

Speed violations were the most commonly issued citation by PCPD officers in 2014 (see chart below). All officers in marked patrol vehicles are equipped with RADAR and charged through policy and practice to prioritize enforcement of speed laws at all times during their patrols. PCPD received no grant money or allocated overtime hours for speed enforcement.

To aid in managing enforcement, supervisors routinely received (approximately weekly) an update showing comparisons of year-to-date performance on citations for key violations (including speeding) compared to the same time period from the previous year, from a benchmark year, and from the benchmark year plus one week. This information assisted them in recognizing potential from previous trends and guiding officers on goals for the upcoming week.

**Left:** Example chart from 2-17-14.

PCPD conducted four directed team speeding enforcement details during 2014 (Right), which included more than 2 officers working together to conduct concentrated enforcement in a target area using a shooter and stopper configuration. These are typically done for high visibility to remediate an issue or remedy a perception problem. PCPD conducted 45 other speed details that included one or two officers working on a specific complaint.

PCPD does track “Directed Traffic Enforcement Actions” (DTEAs), but our current Records Management System cannot delineate by violation. However, utilizing the assumption that speeding violations were a similar percentage of DTEAs as of total citations, and the same percentage of citations versus warnings applied, we can produce a good estimate of citations in directed areas. We can also produce number of citations issued in target times assigned for high crash times, but the RMS cannot provide that for every detail with directed times. Our very conservative estimation of those statistics follows:

- Speed citations in target areas: 669
- Speed citations in target times: 905
- Speed contacts made in target areas: 1,229
- Speed contacts in target times: 1,383

Total Speed Contacts 2013: 2,951  **10.7% Increase**  Total Speed Contacts 2014: 3,267
As the chart below shows, 2014 marked another year of reduction in speed-related crashes - including a **14% decrease in total speed crashes from 2013**. That’s also a 37% reduction since 2012. Perhaps more importantly, this five-year chart demonstrates a sustained low rate of speed-related crashes.

As described previously, PCPD conducts routine speed studies both in complaint areas and proactively in order to monitor compliance rates on sections of major arteries or collectors that are prone to speed. The results of these studies routinely show good compliance rates, even in the worst areas. Across the 10 different major locations we surveyed multiple times in 2014 for trend tracking, the average speed was 2.15mph over the posted limit—excluding one highway point with major rush hour congestion that skews the average speed down (-8.5). The average 85th percentile across these locations (average of top 15% of speeding vehicles) was 6.35mph over the posted limit. These are excellent compliance rates for such areas (those most prone to speed), and demonstrate successful efforts to sustain deterrence. Example data from some of the higher points is below.

<table>
<thead>
<tr>
<th>Location</th>
<th>Avg. Speed Limit</th>
<th>2014 Avg Speed</th>
<th>2014 Avg 85th %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy 54 EB @ Wyndham</td>
<td>45</td>
<td>+1.5</td>
<td>+6.5</td>
</tr>
<tr>
<td>Hwy 74 NB @ Rinnai</td>
<td>55</td>
<td>+2.5</td>
<td>+7.5</td>
</tr>
<tr>
<td>Ptree Pkwy @ Village on the Green</td>
<td>40</td>
<td>+4</td>
<td>+8.5</td>
</tr>
</tbody>
</table>

PCPD has several award programs for officers performing exceptionally well in various areas of enforcement, but we avoid giving a formal award or incentive specifically for speeding citations. This is done to avoid any appearance of improper influence on officers’ use of reasonable discretion in issuing those citations. We do, however, recognize the top performing officer on speed, DUI, and occupant protection violations on each publication of the traffic safety report. An example is shown below.