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A. Predication

1. Purpose of automated for-profit law enforcement devices

It is noted that proponents of automated for-profit law enforcement devices (commonly known as red light cameras) state without exception their sole purpose is safety. Safety therefore is best defined as not having a traffic crash due to red light running. Safety is not defined as having an increase in injury crashes or other types of crashes regardless of those caused by red light running.

2. Purpose of this analysis

The purpose of this analysis is to utilize Florida Department of Transportation (DOT) traffic crash data for the City of Gulf Breeze intersection that received an automated for-profit law enforcement device to determine the actual need and assess the accuracy of a statement made by the Mayor in 2011¹. The data was received from the DOT on July 6, 2012.

a. Dual time frames

The City of Gulf Breeze, Florida was the first city in Florida to utilize automated for-profit law enforcement¹. For Gulf Breeze, this was done before such enforcement was legalized as of July 1, 2010 via the Florida Legislature. Gulf Breeze utilized automated for-profit law enforcement devices from March 2006 through August 2009, and began doing so again in March 2011. According to the City of Gulf Breeze's newsletter dated January 2011¹:

Red light camera enforcement is slated to begin again very shortly in Gulf Breeze. Legislation became effective that enables red light camera enforcement programs. Gulf Breeze was a pioneer in Florida as the first community to adopt an ordinance and issue fines for violations of camera enforced red lights in the city starting in 2006.

The red light camera's (sic) will be placed at the intersection at Daniel Drive and Highway 98 at our school complex. This location is traversed by over 50,000 cars per day on Highway 98. Parents, teachers, administrators, students and staff make approximately 5,000 daily vehicle trips into the school complex. The need to be proactive and avoid a tragedy at this sensitive location is compelling. The motivation for this location selection above all others in the city is to keep the student population safe, while facilitating traffic flow and enforcement.

Our previous project ended in 2009. The city had experienced a decline in crashes each year the project was functional and has experienced an increase since the project ended. The new equipment to restart red light camera enforcement has been received and the project is awaiting permitting approval which is expected very shortly. Signs will be posted at the intersection advising that the light is photo enforced, much like toll violations are posted and the new fine will be \$158. Over half of the money collected will go to the state and the remainder will be used to pay for the project. The Gulf Breeze Police urge all motorists to stop for red lights. It will enhance safety in the city, avoid a fine and will contribute to reducing crashes.

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According to a published edition of the *Gulf Breeze News* dated May 18, 2006², the city was using a device at this same location and had to relocate it due to it being on a DOT right-of-way. The news story states the device was placed into service late in February 2006.

The exact dates could not be determined based on news reports, so an email request was sent to the Gulf Breeze Chief of Police on July 6, 2012 requesting the dates the devices were placed into and removed from service. On July 9, 2012, the Chief replied that the prior program began in March 2006 and was terminated in August 2009, and the current system began in March 2011. Since there is insufficient data for a post-device period for the current usage, the scope of this analysis will be for the period of March 2005 through August 2010. It is noted the DOT crash data is unavailable for 2012 as of the date of this analysis, so the focus will be upon the period of times as identified by the Chief of Police.

b. Legal issues

This analysis will not deal with the numerous legal issues involved with the use of automated for-profit law enforcement.

c. Compensation and backing

The author was not paid to prepare this analysis or assisted by any other person or organization other than peer review of the finished product for typographical errors.

3. Benchmarks

Using the aforementioned safety definitions, the benchmarks utilized to arrive at a conclusion for the effectiveness of automated enforcement are as follows:

- Did the overall number of crashes decrease or increase?
- Did the number of injury crashes decrease or increase?
- Did crashes caused by red light running increase or decrease?
- Did crashes caused by red light running involve an impaired driver?
- Did rear end crashes increase or decrease?
- Did other crashes increase or decrease?

An overall synopsis will follow the intersection data.

4. Notes on the DOT data

a. The DOT data lists the number of people injured or killed. For the purposes of this analysis, any injury or fatality amount is classified as one crash. If both an injury and a fatality are shown, the crash will be classified as a fatal crash.

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- b. The date ranges have been broken down into as near a 12-month interval as possible so as to make an equitable analysis. Gulf Breeze is a seasonal town with a tourist season, so increments must be for the same beginning and ending months year-to-year to be valid. Data date ranges:
 - 1. Pre-device: 12 months prior to automated for-profit devices being in place (March 1, 2005 through February 28, 2006)
 - 2. During-device: 12-month increments as possible with automated for-profit devices in place:
 - a. March 1, 2006 through February 28, 2007;
 - b. March 1, 2007 through February 29, 2008;
 - c. March 1, 2008 through February 28, 2009;
 - d. A 6-month period of March 1, 2009 through August 31, 2009.
 - 3. Post-device: 12 months after device discontinuance (September 1, 2009 through August 31, 2010)

B. Executive summary

This analysis has shown that the prior use of automated for-profit law enforcement devices has not increased the safety for the motoring public in the City of Gulf Breeze, Florida. This analysis has found there was no significant crash problem at this intersection, as the Florida DOT only reported a total of sixteen (16) crashes for this fifty-three month period, for an average of .30 per month. There were no fatal crashes, a total of seven (7) injury crashes, and only one of the crashes involved red light running. This crash data listed the driver running the red light as being impaired (DUI). Automated enforcement in the author's experience will not affect an impaired or inattentive driver.

The crash volume at this intersection is so low a couple of crashes can greatly skew the data.

C. Analysis

1. History

Gulf Breeze's automated for-profit red light camera program was in place and working as of March 2006 and tickets were issued starting at that same time. There has only ever been one (1) intersection that received automated for-profit law enforcement devices, US 98 and Daniel Dr. This system was removed in August 2009, and a new system was placed into service in March 2011.

2. Possible external factors

a. Oil spill

Gulf Breeze is located on Florida's Gulf Coast near Pensacola, and is a tourist area. In April 20, 2010, there was a significant oil spill in the Gulf from the Deepwater Horizon that greatly affected tourism in the area. It is noted the number of crashes after that date totaled one (1) from April 20, 2010 through August 31, 2010. The peak had been eight (8) in 2008-2009, all during a time of automated enforcement.

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b. Gasoline prices and the economy

Gasoline prices, according to the website Florida state gas prices.com varied widely during this time, which also included a time of economic recession. 2005 data was not available. In June 2006, a gallon of gasoline in the Pensacola area averaged \$2.77/gallon. By June of 2008, they were nearly \$4.00/gallon but by November had fallen to around \$1.54/gallon. Since that time, they have steadily risen, approaching \$4.00/gallon again in April 2011. Higher gas prices usually result in fewer miles driven. Fewer miles driven usually result in fewer crashes.

c. Political and financial considerations for implementation

The automated for-profit system was originally brought to Gulf Breeze by the Chief of Police at the time³. On April 5, 2011, this individual in his official capacity suggested the city form a "back office" private company to administer the program⁴. Approximately nine (9) months later³, this individual retired from the police force and formed a private company along with a family member. The former chief's "back office" company was hired and he was awarded a salary of \$2,000/month. In the April 5, 2011 letter, the last sentence of the 2nd paragraph read: "In the future, there is significant revenue to be generated by this venture."⁴

3. Format

Since there is only one intersection to review and there were two different time periods where automated for-profit devices were used, the format of this analysis will be slightly different from those involving multiple intersections that had only one time period for the devices. This analysis will utilize the time frames as noted in Section A. 4. b. Since an insufficient amount of time has passed after the current system was installed, no analysis will be made for it.

D. How to use this report

For the first 12-month cycle of during-automated device date ranges, pre-automated device data will be compared. Successive 12-month increments will be utilized for comparisons after that point, with the exception of the final during-device segment, as it is only six (6) months. If there was an increase in the data, it will be shown in red with a percentage listed. If there was a decrease, it will be shown in blue with a percentage listed. If there is no change, no color-coding will be used. Red data does not favor automated for-profit law enforcement devices, while blue data does. A graphical section follows the individual intersection analysis for an easier view of the data.

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E. Intersection with automated devices: Specific data 1. US 98 and Daniel Dr.: 16 Total Crashes

a. Pre-automated device: March 1, 2005 through February 28, 2006: 12 months Total crashes: 3 Total injury crashes: 1 Crashes caused by red light running: 1 (Note: DUI) Rear end crashes: 0 Other crashes: 2

b. During automated device use: March 1, 2006 through February 28, 2007: 12 months Total crashes: 2
Total injury crashes: 1
Crashes caused by red light running: 0
Rear end crashes: 2
Other crashes: 0

- Did the overall number of crashes decrease or increase? Decrease of 33%
- Did the number of injury crashes decrease or increase? No change
- Did crashes caused by red light running increase or decrease? Decrease of 100%
- Did crashes caused by red light running, did they involve an impaired driver? NA
- Did rear end crashes increase or decrease? Increase of 200%
- Did other crashes increase or decrease? Decrease of 200%

c. During automated device use: March 1, 2007 through February 29, 2008: 12 months Total crashes: 1 Total injury crashes: 0 Crashes caused by red light running: 0 (no change) Rear end crashes: 1

Other crashes: 0

- Did the overall number of crashes decrease or increase? Decrease of 50%
- Did the number of injury crashes decrease or increase? Decrease of 100%
- Did crashes caused by red light running increase or decrease? No change
- Did crashes caused by red light running, did they involve an impaired driver? NA
- Did rear end crashes increase or decrease? Decrease of 50%
- Did other crashes increase or decrease? No change

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d. During automated device use: March 1, 2008 through February 28, 2009: 12 months Total crashes: 7
Total injury crashes: 5
Crashes caused by red light running: 0
Rear end crashes: 7
Other crashes: 0
Did the overall number of crashes decrease or increase? Increase of 700%

- Did the overall number of classes decrease of increase? Increase of 700%
 Did the number of injury crashes decrease or increase? Increase of 500%
- Did the humber of injury clashes decrease of increase? Increase of 500%
 Did crashes caused by red light running increase or decrease? No change
- Did crashes caused by red light running, did they involve an impaired driver? NA
- Did rear end crashes increase or decrease? Increase of 700%
- Did other crashes increase or decrease? No change

e. During automated device use: March 1, 2009 through August 31, 2009: 6 months Total crashes: 0 Total injury crashes: 0 Crashes caused by red light running: 0 Rear end crashes: 0 Other crashes: 0

- Did the overall number of crashes decrease or increase? Insufficient data period
- Did the number of injury crashes decrease or increase? Insufficient data period
- Did crashes caused by red light running increase or decrease? Insufficient data period
- Did crashes caused by red light running, did they involve an impaired driver? NA
- Did rear end crashes increase or decrease? Insufficient data period
- Did other crashes increase or decrease? Insufficient data period

f. Post-automated device: September 1, 2009 through August 31, 2010: 12 months; comparisons to last full year of data, section d. above
Total crashes: 3
Total injury crashes: 0
Crashes caused by red light running: 0
Rear end crashes: 0
Other crashes: 3
Did the overall number of crashes decrease or increase? Decrease of 57%
Did the number of injury crashes decrease or increase? Decrease of 500%

- Did crashes caused by red light running increase or decrease? No change
- Did crashes caused by red light running, did they involve an impaired driver? NA
- Did rear end crashes increase or decrease? Decrease of 700%
- Did other crashes increase or decrease? Increase of 300%

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Conclusion- While red light running crashes decreased in the initial 12-month period following the start of automated enforcement, there was only one for the prior (and entire) period, and it was due to an impaired driver. There was one (1) out of three (3) crashes caused by red light running in 12 months to start with, for a rate of 33%, which is far higher than the latest (2010) state average of 1.24%. Due to the crash volume being so low at this intersection, just one crash can result in a 100% increase or decrease.

The successive data indicates that since the use of automated for-profit law enforcement at this intersection, while all crashes initially decreased 50%; rear-end crashes increased by 200%, and injury crashes remained the same. The number of crashes stayed about the same for the following 12-month period, but for the 2008-2009 period, there was a large upswing in the number of crashes. All of these crashes were rear end crashes. Following the discontinuance of automated for-profit law enforcement, there was a significant reduction in the number of crashes as compared to the last full 12-month period.

Based on this information, automated for-profit law enforcement at this intersection can be said to have had a no effect on red light running crashes (DUI causation) and a negative effect on other crashes, notably rear end crashes.

7 6 5 4 Injury 3 Rear-end 2 Other 1 Λ 2005-2006-2007-2008-2009-2006 2007 2008 2009 2010

E. Graphical data

1. US 98 and Daniel Dr. 16 total crashes January 2005- December 2011

Automated for-profit enforcement was in use from 2006-2009

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F. Overall synopsis and conclusions

In the 12 months prior to the use of automated for-profit law enforcement in the City of Gulf Breeze, there were only 1 out of 3 total crashes caused by red light running at the intersection that later received a device, for an average rate of 33%, which is higher than the 2010 state average for all crashes of 1.24%. It is noted this crash involved an impaired driver- a DUI violation. In the author's law enforcement experience, impaired and inattentive drivers are not affected by the presence of either law enforcement officers or automated enforcement devices.

Of significance, the amount of rear end crashes has been a factor. Prior to device use, there were no rear end crashes at this intersection. For the time frame from of March 2006 through August 2009 utilizing automated enforcement, of the ten (10) crashes, all were rear end crashes.

The claims made by the Mayor of Gulf Breeze in January 2011¹ were as follows: "Our previous project ended in 2009. The city had experienced a decline in crashes each year the project was functional and has experienced an increase since the project ended."

Based upon the author's analysis of the crashes as referenced herein, this statement is mostly untrue. While there was a reduction from the pre-device period of March 2005 to February 2006 in the two following 12-month periods, there was a large spike in crashes while the device was active in the third 12-month increment. The amount dropped down significantly after removal of the automated device in 2009, and there were no crashes reported in all of 2011, but the author's conclusion is this is due more to external factors such as the oil spill.

In the author's law enforcement experience, rear end crashes are caused by driver inattention, and are non-preventable. Additionally, it is impossible to predict where or when a traffic crash will take place. The data revealed in this report could be drastically different one way or the other if reviewed again in another year based on just a few crashes.

The low volume of crashes combined with the nature of the majority of the crashes indicates the lack of a need of enforcement, either human or automated. It is inconsistent with the goal of safety and fiscal sensibility to utilize enforcement, either human or automated, where there have been very few or not been any crashes or any preventable crashes.

It is noted crash data is readily available to the local police, who are the ones that prepare the crash reports utilized and would therefore be the first ones to know where the crashes are taking place, what is causing them, and then assigning staffing for enforcement in order to reduce the crash rate.

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Regardless of the law enforcement problem, the latter situation is a sound law enforcement management technique. For example, a city may be experiencing daytime burglaries in a certain neighborhood. The Chief of Police would be wise to direct additional patrol staffing to that area until the problem subsided. Another example is as evidenced by Chapter 17 Section 20 of the law enforcement-accredited *Florida Highway Patrol Policy Manual*⁵. The manual directs the Troop Commander to assess crash data quarterly, prepare an analysis, and forward it down the chain of command in order to reduce the crash rate.

The analysis process is specified in Chapter 17 Section 20.06:

17.20.06 PROCEDURES

A. ANALYSIS OF TRAFFIC CRASH DATA

1. The analysis of traffic crash data should include, but not be limited to, the following information:

- a. Locations with the greatest number of crashes listed in order from highest to lowest.
- b. Listings of the specific roadways and the number of crashes which occurred on them.
- c. Days of the week and times when the crashes occurred.
- d. Any violations or other significant factors contributing to the crashes.

As state and other statistics show, red light running is not the epidemic that the for-profit automated device companies and some local officials make it out to be.

The author has concluded the for-profit aspect of this enforcement has caused many elected and other officials that have taken an oath to support and defend the Florida and United States Constitutions to overlook their oath and misrepresent the facts regarding traffic crashes caused by red light running.

In this instance, evidence is present to suggest one has used the system to generate a postretirement income. While this analysis will not go into ethical violations, there is an appearance of misconduct here due to advocating a purchase and then profiting from it after retirement. In the former Chief's April 5, 2011 letter requesting a "back office" organization to administer the automated for-profit program, the last sentence of the 2nd paragraph read: "In the future, there is significant revenue to be generated by this venture."⁴ This statement is indicative of the mindset of many local officials, who make public claims of safety regarding automated for-profit devices when their actual concern is revenue.

The author was not paid to prepare this analysis or assisted by any other person or group other than peer review for typographical errors.

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Footnotes-

1. City of Gulf Breeze newsletter Dated January 2011 Downloaded on July 6, 2012

2. <u>Gulf Breeze News dated May 18, 2006</u> Downloaded from the Internet on July 6, 2012

3. <u>Gulf Breeze News January 1, 2012</u> Downloaded on July 6, 2012

4. <u>Minutes of City of Gulf Breeze agenda for April 13, 2011</u> Pages 12-15; downloaded on July 6, 2012

5. *Florida Highway Patrol Policy Manual*, "<u>Selective Enforcement 17.20</u>" (PDF), Florida Department of Highway Safety and Motor Vehicles, Division of Florida Highway Patrol

About the author-

Paul Henry served as a Florida Deputy Sheriff and State Trooper for over 25 years. During his employment with the Florida Highway Patrol, he investigated numerous traffic crashes and worked as a traffic homicide investigator. He later promoted to the rank of Sergeant and supervised traffic homicide investigators and at the same time a squad of troopers. His final five years with the FHP prior to retirement were in the Bureau of Investigations at the rank of Lieutenant. Paul currently works for pro-liberty political issues in the Tallahassee area, to include driver license (REAL ID) and red light camera laws. Paul is the author of the 2012 Florida Motorist Rights Restoration Act, which would have affected how red light camera cases are handled in court.