Bio:

Mark Etzbach is the Regional Sales Director for Redflex Traffic Systems, Inc. Redflex is the current leader in the digital automated enforcement industry with programs across 21 states, over 250 municipalities, and with more digital systems in the ground than any of the competition. Mark received both his B.A. and M.S. from Purdue University. Mr. Etzbach is a pioneer in the field of photo enforcement and has worked with dozens of cities on the successful launch of photo enforcement programs. Mr. Etzbach is an experienced consultant, research scientist and lobbyist with an in-depth knowledge of both legislative processes and operational best practices required in the development and implementation of inaugural photo enforcement programs.

Introduction

Redflex Traffic Systems is the largest and longest consistently operating photo enforcement company in the United States, with over 250 partners and over 1,800 systems installed and in operation. Redflex has more than 20 years of experience providing state of the art traffic safety solutions to government agencies. Our global portfolio of enforcement disciplines include, but are not limited to red light, speed, bus and transit lane, rail crossing, toll and stop sign enforcement. In addition to these core disciplines, Redflex solutions can integrate state of the art automatic license plate recognition technology to assist law enforcement in their search for vehicles of interest, such as Amber Alerts or felony warrants.

Redflex does more than support the largest red light and speed enforcement programs in the United States. We are always looking for ways to expand our technologies in an effort to improve additional public safety concerns. Today, our attention will be focused on an area of automated enforcement that goes largely unnoticed and generally not discussed: automated rail enforcement. I will discuss this type of enforcement by way of one of the few communities in the entire US that utilizes photo rail enforcement.

Automated Rail Enforcement

Grand Prairie, Texas is a town of over 160,000 people in the Dallas metro area. A rail town since the late 1800's, Grand Prairie has a Union Pacific Rail Road corridor running 4 miles through the center of the city. There are 11 at-grade crossings in town, all with lights and gates. These are double main line tracks with trains traveling up to 60 miles per hour. Four years prior to implementing photo enforcement, this corridor had the distinction of being one of the worst in the State of Texas and on the entire UP system with 5 fatalities.

Since June of 2007 when the first cameras came on line, there have been zero fatalities. According to Sergeant Eric Hansen of the Grand Prairie Police Department, "The use of photo enforcement at railroad crossings has greatly increased the respect for these warning devices by the motoring public. We have seen the number of violations at railroad crossings drop by more than 50% compared to when they were first installed."

Pennsylvania is a big rail road state ranking at or near the top in a number of categories in the United States. The Association of American Railroads compiled the following rankings for the calendar year in 2007 including:

- #1 in freight railroads with 58
- #5 in total rail miles with over 5,000
- #9 in rail tons originated by State
- #10 in rail tons terminated by State
- #8 in rail carloads terminated by State

Pennsylvania is, and has been one of the largest States with regard to rail road employment which is evident by the following:

- #8 in freight rail employment
- #8 in freight rail wages
- #1 in rail retirement beneficiaries
- #1 in rail retirement payments

Pennsylvania is an ideal environment to expand this type of enforcement effort, with a rich rail road history, over 5,000 miles of track, and over 4,200 public highway rail crossing. There is also a legitimate and tangible safety need for this type of enforcement. The FRA reports that there were 18 highway rail incidents in 2008, 6 of which resulted in fatalities. Pennsylvania also ranked fifth in the US in trespass fatalities with 24. The need for enhancing enforcement of traffic laws at rail crossings is recognized by agencies such as the U.S. Department of Transportation and the Federal Railroad Administration and photo enforcement is already formally recognized by the FRA as an alternative safety measure in quiet zone requirements.

These unfortunate statistics don't capture the near misses, the reckless driving, and gate arms that are knocked off routinely and tracked by the various rail road companies to target their safety needs. Many railroads have already begun employing in-locomotive video to capture these incidents, but consistent enforcement is what's required to reduce the risky driving behavior that could result in the tragic loss of life or major property damage. While a vehicle on vehicle collision at an intersection all too often ends in tragedy, a vehicle on train collision has the potential of ending in catastrophe with major loss of life and property damage.

Automatic License Plate Recognition

With over 1,800 systems currently installed in the US, Redflex supports a vast network of infrastructure that is growing every day that can be leveraged to provide law enforcement with an additional crime fighting tool called automatic license plate recognition (ALPR). This tool uses enhanced optical character recognition technology to read license plates in real time, 24 hours a day, 7 days a week. The system can be integrated with any existing database, or a database can be created for vehicles of interest. Example databases include stolen vehicles, felony warrants, parking enforcement, Amber Alerts, or persons of interests in narcotics or gang investigations.

Identified vehicles of interest generate an alert sent in real time to a designated place, group or individual. Traditional use of ALPR systems consist of an equipped squad car patrolling parking lots looking for vehicles of interest, generally resulting in that vehicle being towed and impounded. By targeting vehicles that are moving in traffic, this approach to ALPR presents law enforcement with the potential for live contact with the vehicle operator and an opportunity

for an arrest. If law enforcement officers are unable to track down every live alert, the data is stored for complete data mining. Using back office search tools, law enforcement officers may be able to identify a pattern for a vehicle of interest or identify a vehicle from a partial plate read. This technology works in parallel with our enforcement systems so that they are never shut down or interrupted.

Both of the tools discussed today can add tremendous value to the people of Pennsylvania by improving road safety at grade crossings, improving overall public safety by targeting criminals of interest, and enabling the law enforcement community to take advantage of innovative tools that will make their already difficult job a little safer and easier.