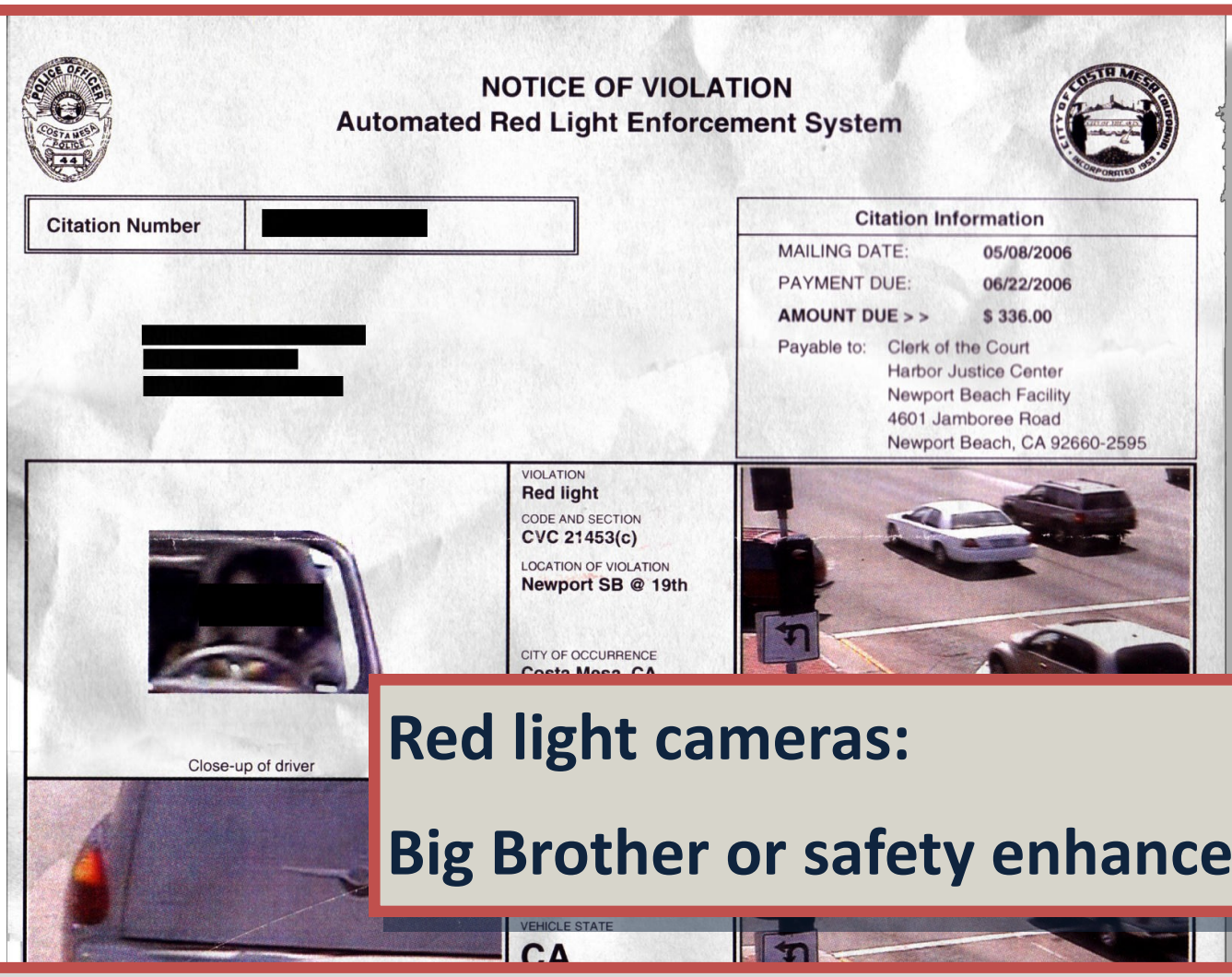
CALIFORNIA ASSOCIATION
OF ACCIDENT RECONSTRUCTION SPECIALISTS

SKIDMARKS

JUNE 2013 – VOLUME 15, NUMBER 2



Red light cameras:

Big Brother or safety enhancer?

In this issue:

THE BOARD BEAT

Summer is approaching, which means trips with family, more barbeques, and lots of fun…for some. I hope each of you has a great summer.

CA2RS membership is nearing 300 active members. There are over 100 former members who have not renewed for a variety of reasons. There are many people in our industry, both private sector and law enforcement, who are not members but should be. There are lots of reasons to join: 24 hours of training per year for only a $40.00 membership fee, a great annual conference with more great training, great networking opportunities, just to name a few.

There has been some talk of creating a third, Central California, training region. To support that, we need more members from that area. But regardless where you are based, you know someone who would benefit from membership in this great organization.

July 1st is the beginning of the new membership year. Early renewal reminders have already been emailed. Many members have already renewed. PayPal is a great way to take care of it. It saves us all time compared to paper checks. You can set up automatic renewal payments and never worry about it again.

2nd Quarter Training was attended by nearly 100 members. RSVP's by attendees through the website Event registration were very good. Members are able to register and cancel their attendance through this feature. I encourage all of you to use this feature as accurate numbers help us to get handout materials, snacks and coffee without overspending or running out.

The 2013 Annual Conference will be in Long Beach, October 24th-26h. The ACTAR Exam will be on the 23rd. More information to follow.

John Crews

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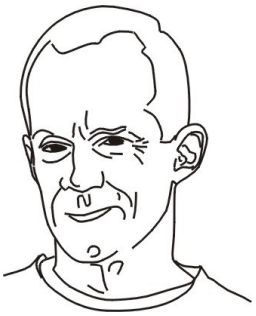
Letter from the editor

Dear CAARS members,

I have travelled a great deal in Europe, where traffic cameras have been used for two decades to catch speeders and those running traffic lights. So it has been interesting to me to see the reaction of my fellow Californians to red -light cameras. They've been introduced into a number of California's cities since 2000 with mixed results. This being America, there has been of course a hoot and a cry about these with ample mention of Big Brother. In this issue I've included several articles with recent news and links to older articles about how this issue has played out around the state. This is a topic that leads endlessly around the Internet to interesting stories about reactions to such systems around the country.



Included in the "In the news…" section are articles on topics that I want to explore more thoroughly in future issues: unintended acceleration, distracted driving (especially amongst younger drivers), and the state of traffic safety around the globe. Also of steady interest are driverless cars. These seem to be increasingly in the news, and I shall continue to cover the development of this technology, which is a game-changer in our accident reconstruction community.

As always, your feedback and suggestions for future issues is welcomed.

Best wishes,

Frank Owen

editor@ca2rs.com

CAARS annual conference

Topic: Collision Investigation and Commercial Vehicles

The 2013 CAARS annual conference will be held 24-26 October (Thursday-Saturday) at the Hyatt Regency - Long Beach (200 South Pine Avenue, Long Beach, CA 90802). Registration for the conference will be opened to members in July. Keep an eye out for an email from the CAARS Board of Directors with details and a link to register. Remember, you must be a current member to get the CAARS membership price. Note also that the ACTAR exam will be offered Wednesday, 23 October.

Upcoming ACTAR Examination Dates and Locations

August 2013

16 August – Ontariao, OR, sponsor: OSP. New applications must be received by 16 June. Exam registration cut-off date is 16 July 2013. Held at Oregon Department of Transportation.

September 2013

29 September – Glendale, AZ, sponsor: SATAI. New applications must be received by 29 July. Exam registration cut-off date is 29 August 2013. Held after the SATAI fall conference.

October 2013

23 October – Long Beach, CA, sponsor: CAARS. New applications must be received by 23 August. Exam registration cut-off date is 23 September. Held at the Hyatt Regency Long Beach before annual CAARS conference.

There are other tests offered in other parts of the country and Canada. Please go to ACTAR test website listed below for these dates.

All test dates above subject to new testing regulations, which prohibit the use of electronic devices for testing.

Go to www.actar.org/test.html for additional information.

Second-quarter training

Roseville Police Department, 3 June, Roseville, California

by Frank Owen and John Crews

The second-quarter training for CAARS took place Monday, 3 June, at the Roseville Police Department and then again the following day in Southern California at the Glendora Police Department. The topic was "Time Distance Analysis and Physical Evidence Identification", presented by Mike Allison and Jahna Beard. Nearly 100 attendees in total attended the training.

The seminar consisted of some up-front lecture and background, but then it quickly got into a hands-on, problem-solving mode. I took five pages of notes, but a good three of those pages are time/distance/speed calculations. The hands-on part of the training was built around seven case studies, covering various aspects of this fundamental part of accident reconstruction.

No slacking in the back of the room: much of training seminar was hands-on, with participants working a set of problems posed by Mike and Jahna.

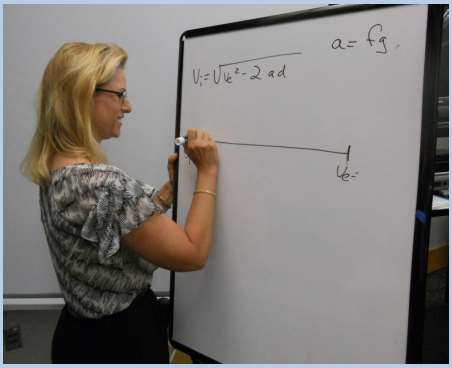
Since the motion of vehicles is often deduced from their skid marks, there was a somewhat detailed discussion of skid marks at the start, including

1. The difference between front- and rear-wheel tire marks during braking
2. Overlapping front/rear skid marks vs. four-wheel independent marks
3. Skid marks left by vehicles under ABS control
4. Skid marks left by motorcycles
5. Diagonal striations left by an accelerating vs. a decelerating vehicle
6. Skid marks left by a yawing vehicle

ABS skid marks and also increasing the visibility of light skid and scuff marks using various photographic filters came up. Mike mentioned that polarizing filters often render hard-to-see skid marks visible or more visible, as can be seen by simply using polarizing sunglasses. He also mentioned that other colored filters can be used with black-and-white photography to make virtually invisible skid and scuff marks visible. This includes scuff marks left by the shoes of a pedestrian. Visibility can also be improved simply by changing the view angle to a very shallow one–i.e., looking along the surface at a very shallow angle.

We discussed the sequence of events in a collision. One begins the calculation not at the beginning of the sequence but at the end and works his/her way backward in time to the beginning of the crash, when the parties involved first realize that a hazard exists. This sequence, given backward is

6. The vehicles are at their final stopping points
5. The vehicles have just collided
4. The vehicles are just about to collide
3. Start of full braking
2. Start of any braking



Jahna sets up next example for attendees

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1. The recognition of an impending collision

It is important to analyze this sequence for a particular crash and calculate when and where each of these instants in the sequence occurred and what the speed was at each of these instants. There was some discussion of the 2-3 event, sometimes called "latent braking", sometimes called "brake lag". There was also some discussion and caution given about the duration of the 1-2 event, the perception and reaction time of the crash participants. These are events that often have wide variability depending on the circumstances of a particular crash.

Mike recommended a book by Baker for the understanding of skid marks and calculating speeds from them. This book, Simple estimates of vehicle stopping distances and speed from skidmarks by J. Stannard Baker, is unfortunately out of print. He also recommended a book by Olson on perception/reaction times. This book, Forensic Aspects of Driver Perception and Response, is available at Amazon for a little over $70.

The case studies presented were

A. A conventional calculation of a pre-skid speed, starting with the end position of the skid. The friction factor is calculated from data given for skid tests at the crash location.

B. A speed-from-skid distances calculation, as in 1, but with skidding that crosses two areas, one after the other, with very different friction factors.

C. Yaw skidding in a curve

D. A speed-from-skid case where the beginning and ends of skid marks are given as north/south and east/west coordinates. From this a drawing needed to be made. Then the skid distance could be calculated.

Reconstructionists grind away at real-world problems.

E. An auto/ped case where skid distances and locations are known. The problem is to calculate pre-skid speed of car, speed of car at area of impact, and the location of the pedestrian when the car began to skid.

F. A right-angle crash at an intersection with a building obscuring the line-of-sight between the two vehicles. Problem is to calculate locations of vehicles at start of skid of vehicle B and determine which, if either vehicle, ran a stop light.

G. A second auto/ped collision, where the location of the pedestrian at the start of skid is known and also the AOI is known. From this the speed of the pedestrian can be determined. From this and human factors data as a function of age, it could be determined whether the pedestrian walked or ran to the AOI. From this, the location of the pedestrian at the time of perception of the driver could be determined. And from this it could be estimated, whether the fatality was an accident or a suicide.

Mike and Jahna did an excellent job with this topic. There was a chance to apply the skills taught in practical application exercises. Jahna finished up walking students through several case studies, giving them time to work through the equations.

I (Frank Owen) have put the problem assignments and my Excel solutions to them up on my company's website. Mike and Jahna's PowerPoint presentations are posted to the members-only portion of www.ca2rs.com.

IN THE NEWS…

Editor's note: At some point I'd like to devote an issue to electronic throttle technology and unintended acceleration. Toyota has born the brunt of legal attacks surrounding this issue in the United States, and it has cost the automaker over a billion dollars. Perhaps encouraged by this success, attorneys now seem to be circling Ford as the next victim for lawsuits of this type. The latest Toyota settlement was a class action lawsuit on behalf of Toyota owners to compensate them for loss-of-value of their used cars due to Toyota's problems with unintended acceleration, even though no tests have proven that there actually is a problem with this technology in Toyota vehicles. The new action against Ford includes compensation for lost value also.

L.A. TIMES – 29 MARCH 2013

Lawsuit alleges unintended acceleration in Ford cars, vans, SUVs

A lawsuit filed against Ford Motor Co. alleges that several Ford and Lincoln vehicles manufactured between 2002 and 2010 are subject to unintentional acceleration and also lack "adequate fail-safe systems" to prevent crashes.

The suit filed Thursday in federal court in West Virginia seeks class-action status on behalf of consumers in 14 states.

It describes situations in which Ford's electronic throttle system allegedly caused vehicles to accelerate unexpectedly, leaving drivers unable to stop. It does not include any claims of wrongful death or personal injury.

Plaintiffs are seeking compensation for an alleged loss of vehicle value, arguing that they were forced to pay too much for cars with defects.

The lawsuit also alleges that Ford knew about the alleged defect and concealed the problem from consumers.

"We allege that Ford knew about this problem and chose to put its own profits ahead of customer safety," said Adam Levitt, a partner and head of the consumer-practice group at Grant and Eisenhofer, the Chicago law firm that filed the complaint.

Levitt added that "it's clear from the number of affected vehicles that this is a widespread problem that goes across multiple models and years and impacts a substantial portion of the American driving public."

Ford Motor Co. responded to the lawsuit with the following statement, indicating it had already worked with the U.S. National Highway Traffic Safety Administration to address what it called rare instances that could result in throttle problems:

"NHTSA's work is far more scientific and trustworthy than work done by personal injury lawyers and their paid experts," said the Ford statement.

"In rare situations, vehicle factors, such as floor mats or broken mechanical components, can interfere with proper throttle operation," the Ford statement added, "and manufacturers have addressed these rare events in field service actions."

The suit is similar to one brought against Toyota Motor Corp. In February, Toyota reached a $29-million settlement of sudden acceleration claims with attorneys general from 29 states and one U.S. territory.

That agreement came after Toyota announced a record-setting $1.1 billion settlement of hundreds of class-action claims alleging that the automaker's actions involving an acceleration problem had damaged the value of consumers' vehicles.

See full article.

A DUBIOUS DEVELOPMENT (NEWSMAX, 10 MAY 2013)

More Teens Killed Texting While Driving Than Drinking

Teens who text while driving are now more of a road hazard than those who drink and get behind the wheel, a new study reveals. Researchers at Cohen Children's Medical Center in New York say there are more than 3,000 teen deaths nationwide each year from texting and at least 300,000 injuries.

Those staggering figures are well above the number of teenagers who are killed or injured while drinking and driving, with 2,700 dying as a result of alcohol-related crashes and 282,000 injured.

According to Newsday, Cohen researchers found that among 8,947 teens aged 15-18, 49 percent of boys and 45 percent of girls admitted to texting while driving.

"A person who is texting can be as impaired as a driver who is legally drunk," Cohen's Dr. Andrew Adesman told the newspaper.

See full article.

BUT TEXTING CAN ACTUALLY SAVE LIVES TOO (LE MONDE, PARIS, 14 MAY 2013)

Thanks to the Internet, young Americans drive less

For a long time the car has been the symbol of individual liberty in the United States, immortalized in the legendary *road movies*. But while Americans have continued to roll in an uninterrupted period of 60 years, the number of kilometers driven has started to decrease since the middle of the last decade.

People between the ages of 16 and 34 have driven 23% less kilometers in a car in 2009 compared with 2001, according to a report.

These facts are known and are already the object of research on the other side of the Atlantic. The economic argument is regularly advanced. In fact, drivers have a tendency to take the wheel less in a period of recession, because they work less and try to save money. Above all, the price of gas has exploded since the 1970s.

But according to a new report published Tuesday, 14 May, by the non-governmental agency US Public Interest Research Group, this thesis doesn't explain it all. The modifications of habits of driving have, in effect, preceded the last recession and seem rather to be part of a structural change tied to a demographic evolution. Thus, according to the study, young people are less inclined to drive—or even to have a driver's license—than the preceding generation, for which the car appeared to be a right.

See full article.

FROM DOWN UNDER (BRISBANE COURIER-MAIL, 17 APRIL 2013

Fixing nation's worst highway is a matter of life and death

HERE'S a terrible prediction - more than 30 people will die on the Bruce Highway between now and the end of 2013.

It's a chilling example of the laws of probability. With depressing predictability, motor vehicle crashes on Queensland's most important arterial road claim more than 40 lives each year and hospitalise 400 people or more.

So far this year 15 people have died, which is right on the awful pace for the yearly toll.

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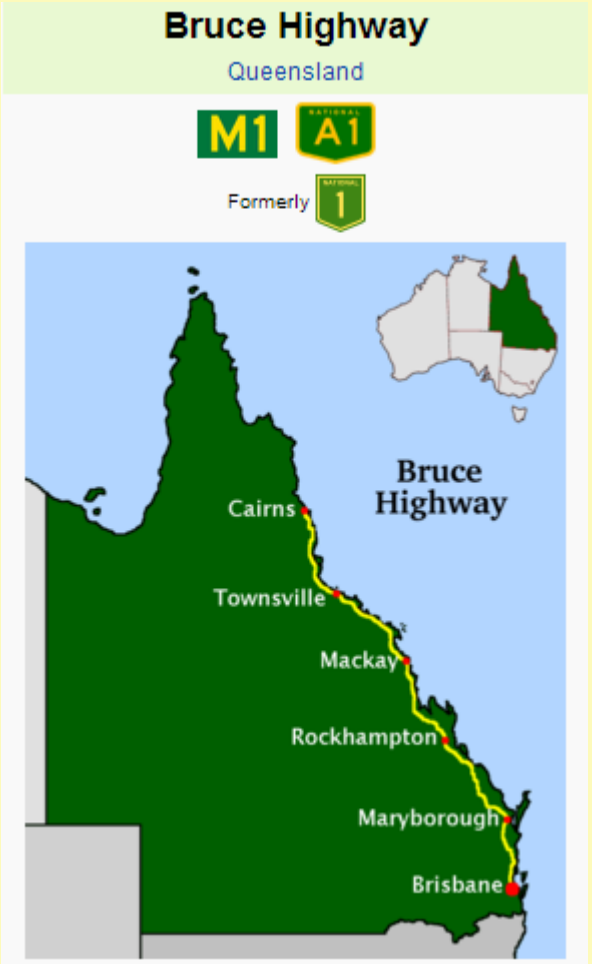

Driver error, mechanical failure and weather conditions play a part but so too does the condition of the highway which, by any measure, is the worst stretch of Australia's national highway system.

It makes up only 7.5 per cent of the national network but accounts for 17 per cent of fatalities.

AusRAP, the Australian arm of the International Road Assessment Program, or iRAP , classes 49 per cent of the Bruce Highway's 1652km length as high risk and a further 39 per cent as medium-high risk, based on the number of crashes per kilometre. By comparison, only 32 per cent of the national network is classified as high or medium-high risk.

Brisbane-based chief executive officer for iRAP's international roads program, Rob McInerney, says the Bruce Highway rates poorly even by global standards.

The dreadful state of the Bruce Highway has been known for years. As far back as 1977, then federal opposition leader Gough Whitlam declared it "a national disgrace", a view formed while being bounced around in a chauffeur-driven government limousine on a northern stretch.

See full article.

THIS QUARTER'S FEATURE

Red-light cameras

Editor's note: Red-light cameras were introduced into various cities and communities in the Golden State since about 2000. This has not been without friction. While the cameras have succeeded in catching many flagrant violators who speed through intersections without even slowing down, it has also caught many drivers making right turns without coming to a complete stop or stopping beyond the stop line that defines the start of the intersection. The fine is usually between $450 and $500, so very steep. Also car owners have been ticketed when they have not been behind the wheel. Confusing intersections have generated high volumes of tickets. Automated ticketing has become an administrative burden for police departments that must review video footage to ascertain whether or not the infraction is, indeed real. Local traffic courts have become clogged with people appealing the tickets at a time when many have seen their budgets slashed. Enforcement of not paying the tickets has been spotty, especially in Los Angeles. At the same time, independent studies seem to show that these systems actually do reduce red-light running at intersections where the cameras are placed. What follows is a selection of news articles on this topic that have appeared around the state since red-light cameras were introduced in California.

INSURANCE INSTUTUTE FOR HIGHWAY SAFETY - 25 APRIL 2013

D.C. residents agree red light cameras, speed cameras make streets safer in nation's capital, IIHS survey reveals

ARLINGTON, Va. — Red light cameras and speed cameras are perpetual targets of critics who deem them widely unpopular and unfair. Ask people who live in areas with long-standing automated enforcement programs their view of cameras and a different picture emerges. A new survey by the Insurance Institute for Highway Safety (IIHS) shows a large majority of people who live in Washington, D.C., favor camera enforcement.

About 9 of 10 residents said they consider drivers running red lights and stop signs, speeding and not stopping for pedestrians serious threats to their personal safety. Among those surveyed, 87 percent support red light cameras and 76 percent favor speed cameras. Half of respondents favor using cameras to enforce laws against stop sign violations, and 47 percent favor using cameras to enforce laws against crosswalk violations.

In the survey, 93 percent of residents said they were aware of the photo-enforcement program, which includes 47 red light cameras and 43 speed cameras. The D.C. Metropolitan Police Department has used red light cameras since 1999 and speed cameras since 2001. It plans to expand the program this year to include stop sign and crosswalk cameras.

"D.C. residents' opinions about automated enforcement are clear," says Anne McCartt, IIHS senior vice president for research. "Contrary to some media reports, Washingtonians aren't fed up with red light cameras and speed cameras. Pedestrians and drivers alike support them."

Washington is among the estimated 530 U.S. communities using red light cameras and is one of about 125 jurisdictions with speed cameras. Study after study shows that the devices improve safety. Speed cameras are associated with large reductions in violations and injury crashes. Studies by IIHS have found reductions in red light violation rates of about 40 percent after the introduction of cameras. IIHS in January added to the evidence with research showing that Arlington, Va., intersections equipped with red light cameras experienced a drop in red light running rates.

A 2011 IIHS study demonstrated that red light cameras reduced the rate of fatal red light running crashes by 24 percent in 14 U.S. cities with long-standing camera programs. In a follow-up survey of drivers in these cities, 82 percent considered running red lights a serious threat to their personal safety, and nearly all viewed it as unacceptable. One of the cities was D.C., where 78 percent of drivers said they support red light cameras.

In the latest survey, researchers in November 2012 interviewed by telephone 801 people who live in the district, with approximately equal numbers of respondents in each of the city's eight wards. Seventy-one percent had driven and walked in the city during the past month, 23 percent had walked and not driven and 4 percent had driven and not walked. People defined as having walked had done so for at least five minutes during the past month. Nearly all respondents said they had walked, either daily (70%), at least once a week (19%) or at least once a month (5%).

How pedestrians view cameras

Pedestrians are among the main beneficiaries of safer city streets but are sometimes overlooked in discussions about camera enforcement because they don't get citations. D.C. officials have stressed the need to make Washington more

Continued on following page...

walkable and bike-friendly and are using photo enforcement to help.

"Other communities could look to Washington as an example of how to shift the debate over the merits of cameras to the positive benefits they provide for pedestrians and bicyclists, as well as people in cars. Enforcing traffic laws makes the roads safer for everyone," McCartt says.

There were 158 traffic deaths in the district in 2007-11. Of those, 55 percent were motor vehicle occupants and 43 percent were pedestrians or bicyclists. More than half of the pedestrian and bicyclist deaths occurred at an intersection.

Ninety percent of people surveyed who hadn't driven in the city in the past month said they favor speed cameras, and 88 percent favor red light cameras.

The survey revealed some confusion about when pedestrians have the right-of-way. More than 9 in 10 people were aware that D.C. law requires drivers to stop for pedestrians crossing the street in marked crosswalks at intersections without traffic signals and mid-block. Only 54 percent knew that drivers must stop for pedestrians crossing at intersections without traffic signals and without marked crosswalks.

To make crossings safer, district officials plan to use cameras at stop signs and crosswalks. Stop sign cameras will detect when a car doesn't come to a complete stop before the stop bar. Crosswalk cameras will record violations when vehicles don't stop for pedestrians in marked crosswalks in the same lane as the vehicle or in an adjacent lane. The cameras will be installed at midblock marked crosswalks and at intersections where the marked crosswalk isn't controlled by a traffic light or stop sign but the minor intersecting street may have a stop sign.

Just over half of residents surveyed said they would support cameras at stop signs, and 47 percent said they would support them at crosswalks. Support was higher among people who hadn't driven in the city in the past month. Two-thirds of people who don't drive would favor stop sign cameras. Nearly 60 percent would support crosswalk cameras.

People opposed to cameras for crosswalks and stop signs most often said they aren't necessary or that these types of violations aren't big problems.

Drivers and camera violations

Slightly fewer people who had driven in the district in the past month said they support speed cameras than people who hadn't driven in the past month, but support for red light cameras was equally high for both groups. Among the driver group, 71 percent favor speed cameras and 86 percent support red light cameras.

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One surprising finding is that 58 percent of drivers said they had received a citation in the mail for a camera violation in the city, mostly for speeding. Of these, 55 percent had gotten more than one ticket. Among ticketed drivers, 85 percent had been cited for speeding, 20 percent for red light running and 3 percent for right-on-red violations.

"It's worth noting that 59 percent of the drivers who had been ticketed agreed that they deserved their most recent citation," McCartt

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points out. "This counters the argument that drivers are being unfairly targeted. The majority of violators knew they had broken the law and agreed with the consequences."

Despite the safety benefits, automated enforcement programs have been a contentious issue in some areas, and Washington is no exception. Controversy over speed cameras led district administrators last year to revise fines for some violations. Fines were raised for speeding more than 25 mph over the limit and lowered for speeding 15 mph or less over the limit, effective November 2012.

Slightly more than half of residents who knew about the cameras also knew about the new fines. More than three-quarters agreed that higher fines for speeding more than 25 mph over the limit are a good idea. Most in favor of the move said it would make roads safer.

Even though media reports often portray camera programs as all about revenue, IIHS found that the majority of D.C. residents don't feel that way. For the minority of residents opposed to automated enforcement, the perception that cameras are mainly revenue generators lingers. Thirty-five percent of residents opposed to speed cameras and 22 percent opposed to red light cameras said they are used to raise money and not to enhance safety. The next most-cited reason was that cameras make mistakes.

BUT IN SAN DIEGO… (L.A. TIMES, 1 FEBRUARY 2013)

San Diego mayor ends use of red-light cameras at intersections

Following a campaign promise, newly-elected Mayor Bob Filner on Friday announced the end of red-light cameras for traffic enforcement.

The cameras, Filner said, are nothing more than "the San Diego version of a traffic trap" using "robotic technology." In the last five years, 78,113 tickets have been issued because of the San Diego cameras.

"These cameras are history on San Diego city streets," said Filner, as city workers began dismantling the cameras.

San Diego has had a red-light camera program since 1998. Until Friday, there were cameras at 15 of the city's busiest intersections, with drivers caught running a red light getting a $490 ticket in the mail.

No more, Filner said. Henceforth, tickets will be written by San Diego police.

As in other cities, the cameras have been controversial in San Diego, with disputed evidence about whether they make motorists less likely to run red lights. Los Angeles ended use of red-light cameras in 2011.

BUT THEN, A FEW MONTHS LATER… (ABC 10 NEWS, SAN DIEGO, 15 MAY 2013)

Debate over red light cameras re-ignited after fatal crash in El Cajon

A fatal crash in El Cajon has re-ignited the debate over red light cameras at intersections.

Michelle Hay, 36, was killed last Friday at an intersection that used to have a red light camera.

The impact of the crash sent Hay's car onto its side. Hay was ejected and killed instantly. Police said the woman driving the car that hit Hay's ran a red light at Mollison and Washington avenues.

Hay's mother is angry because just two months ago, the El Cajon City Council ordered all red light cameras be shut off

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for a six-month probationary period.

Mollison and Washington did have red light cameras but only for eastbound and northbound traffic, not westbound, which is where the driver who hit Hay was headed.

El Cajon Police Chief Jim Redmond told 10News, "We have an independent witness who indicates that the driver kept a steady speed going into the intersection, so we don't believe a red light camera would have been a factor."

10News asked Redmond if red light cameras were being reconsidered in light of Friday's fatal crash but he said it is still too early to tell.

"At the end of this probation period we will take a look at all the data and be able to offer the council some facts," he said.

San Diego Mayor Bob Filner told 10News there was not enough evidence to prove red light cameras were saving lives in San Diego.

"The police department thought it was the right thing to do," he said. "They are using motor officers to look at the intersections targeted before. So there will be problems that arise and our hearts are with the victims, but you have to go with your best judgment."

The woman who ran the red light was cited, but police said she is still facing possible further charges.

IN THE BEGINNING IN L.A.(L.A. TIMES, 1 JULY 2000, ESSAY BY PAUL TEETOR OF MANHATTAN BEACH)

Green Light for Red-Light Photos

It's working in West Hollywood. It's boffo in Beverly Hills. Now Los Angeles wants to join the block party and start its own photo red-light program.

I say green-light that idea.

Civil rights? Get over it. Where does it say we have the right to run red lights in privacy? Driving downtown is more terrifying than basketball practice at Indiana University. Turn signals are optional and growing obsolete. Distracted people shout into cell phones as they make sudden lane changes and unannounced U-turns. Muscular SUVs assert their higher-than-thou territorial dominance over my 98-pound Toyota.

All too often, the right of way is determined by tonnage and velocity. In L.A., size really does matter.

Most terrifying of all are the red-light runners. The bloody results of their reckless, self-important impatience are on the news too many nights.

Now the L.A. City Council wants to fight back. It will fund a pilot program that will install these high-tech cameras in 16 of the most dangerous intersections.

The timing is perfect, the right idea at the right place: reality programming at the corner of Hollywood and Vine. Call it "Surviving Big Brother." The twist: Big Brother is not only watching you, he's writing tickets as well.

It even comes with film in the mail, four little Polaroids showing you in each stage of the forbidden act.

I know, I know. I've heard the whispers: It's a giant step toward 24/7 surveillance of everybody, everywhere. If we don't take a stand now, the police state will soon be snooping in our bedrooms.

Sorry. I don't buy it.

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Democracy is a delicate balancing act, a series of trade-offs between freedom and responsibility, between individual independence and intrusions mandated by the greater good. This one is a trade-off worth making.

These traffic cameras are no threat to our constitutionally guaranteed freedoms. They will save lives and help more Americans pursue life, liberty and happiness--an afterthought in 1776 but a dominant value in 2000.

But for those keep worrying about Big Brother invading our personal space, hope keeps rolling down the highway. At a recent convention of the California Peace Officers Assn. in Redondo Beach, the HALT 2000--High-speed Avoidance using Laser Technology--was unveiled.

This sleek, silvery weapon lets police stop a fleeing suspect by shutting off the car's engine and bringing it to a slow, controlled halt. A laser beam from the remote control gun activates a computer chip in the car, which then slowly shuts down the fuel system and gives the driver time to come to a safe stop.

Although a demonstration that quickly brought a black Mercedes-Benz to a halt generated favorable media coverage and showed the engineering was solid, the politics of it are more problematic. There are sure to be even more dire warnings about Big Brother should the HALT 2000 be proposed for street use.

There's a natural fear that the police might use and abuse it in situations other than chasing a fleeing suspect. The potential for trampling on the public's privacy rights is huge, more so than with the photo red-light program.

Despite the civil liberties issues, there are several compelling reasons the HALT 2000 could be the city's logical next step after the photo red-light program.

Theoretically, there would be no more streets closed while police chased fleeing suspects. No more innocent bystanders killed. And no more interrupting TV programs for those incredibly annoying "live and exclusive" car chases.

I say green-light that idea too.

BUT THINGS WENT SOUR BY 2008 (L.A. TIMES, 6 JUNE 2008)

L.A. is a loser on red light cameras

Culver City is among municipalities raking in revenue from photo enforcement systems, a Times review shows

When it comes to collecting traffic ticket revenue from red light cameras, Culver City has been king in Los Angeles County.

The city generated nearly $2 million in photo ticket fines in the last eight months -- hundreds of thousands more than Los Angeles, which had cameras at twice as many intersections, according to new government estimates obtained by the Los Angeles Times.

And although Culver City makes money, Los Angeles' photo enforcement program is running in the red and may never recover about $2 million in construction costs and past deficits, records and interviews show. In addition, Los Angeles officials recently reported that they overpaid their red light camera contractor by more than $500,000.

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Critics say that red light cameras -- hailed for reducing deadly collisions at the intersections they monitor -- have essentially become ATMs for local governments, issuing citations around the clock that can cost up to $400.

But a Times review of more than two dozen systems in Los Angeles County found sharply mixed financial results. Some officials also acknowledge that because camera ticket revenue flows through a labyrinth of court and county agencies, it is hard to precisely gauge how much cash their systems generate.

Some cities, including Walnut, Santa Clarita and Montebello, have netted tens or even hundreds of thousands of dollars above camera operating costs, officials say. Culver City could clear even more this year, based on budget documents and recent revenue estimates.

Yet Paramount shut down its camera program in 2006 after running a projected $178,000 deficit in two years.

"It just really wasn't what we thought it would be," said Assistant City Manager John Moreno.

Compton also canceled its program because of concerns over costs.

The reasons for the financial differences can include varying traffic volumes, citation and collection rates, as well as drivers adjusting their behavior, officials say.

Link to full story: http://articles.latimes.com/2008/jun/06/local/me-redlightmoney6

L.A. ENDED ITS EXPERIMENT LAST YEAR (THE DAILY BREEZE, 27 MARCH 2012)

Los Angeles ends it use of red-light cameras

Los Angeles's much-maligned red-light traffic camera program officially ends this week, after the Police Commission on Tuesday ordered a halt to collecting fines from violators caught on film.

Eight months after city officials ordered the cameras turned off, the commission voted 3-0 to formally stop collecting unpaid tickets as of Saturday.

People who already paid their tickets, however, will not receive refunds, officials said.

That leaves only two South Bay cities that still use the systems.

Earlier this month, the Hawthorne City Council voted to continue its program after a motion was introduced to take them down. Inglewood also uses them.

In December, Gardena canceled its program because it was costing the city more than it generated in revenue. A Gardena police study also found that the cameras did not reduce collisions.

An Orange Line bus enters the Mason Ave. and Busway intersection at Victory Blvd. in Woodland Hills, CA. on Tuesday, March 27, 2012. While the City of Los Angeles has eliminated the red- light camera program, drivers can still be cited at some intersections. The Orange Line Busway is controlled by the MTA and has an active red-light camera program. (Dean Musgrove / Staff Photographer)

The Los Angeles program faced sharp criticism from the public and City Council members last year, amid questions on their effectiveness and ability to generate revenue for the city.

"It was completely wrong," said Councilman Dennis Zine, who was among the council members calling for an end to the program. "It was strictly designed to bring in revenue and didn't do anything for public safety."

Last year after the Los Angeles City Council ended the program as of July 31, it continued the contract with American

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Traffic Solutions for the purpose of continuing to collect unpaid tickets.

Revenues from the program have continued to decline and the Police Commission vote ends the contract with the Arizona-based vendor as of Saturday, with no additional extensions for processing outstanding tickets.

Councilman Mitch Englander, who chairs the council's Public Safety Committee, agreed with Zine.

"It wasn't effective and was costing us more to enforce than we were getting back from it," Englander said.

Police Commission member Alan Skobin said he believed it was time to shut the operation down.

"If you look at the revenue, this comes from the public," Skobin said.

"Some people will decide to pay the tickets. Others will decide to put the money back into the economy in other ways."

L.A. was the first local jurisdiction to repeal the program last year, which included tickets for people who made rolling right-hand turns when the light was red.

"We need to warn people that this applies only to the city of Los Angeles," Zine said. "There are several other jurisdictions around the county that still have the red light cameras and people can get tickets."

The order was issued as other jurisdictions debate the value of the program.

Like the controversy with L.A.'s cameras, critics of Hawthorne's program cast doubt on whether or not the cameras stopped accidents at intersections, improved driver behavior and was cost-effective to the cities that used them.

But the council also made it easier for the city to end the contract with Redflex Traffic Systems, stipulating that the program can be stopped with 30-days notice.

"It is efficient," Capt. Keith Kauffman told the Hawthorne city council. "Red-light violations are very difficult to enforce for policemen.

"You have to be able to see a violation occur with your own eyes at the same time that you're watching the red phase of the light, a vehicle and the limit line.

"For a policeman, that's tough," Kauffman said.

Glendale, on the other hand, voluntarily ended its program in February, citing two contradicting opinions issued by a state appeals court on the legality of red-light camera programs.

The program had been successful for the city - cutting the number of citations issued in half during the time that cameras were in use, said Sgt. Tom Lorenz.

Still, the program was not cost-effective, he said.

"It just became cumbersome to have an officer sit in an office all day, viewing videos, sending notices, going to court," Lorenz said. "It was absolutely effective. But we can be just as effective putting that officer on the street rather than putting him in the office."

Glendale was not pursuing those who did not pay fines, Lorenz said.

SOME PROBLEMS WITH RED-LIGHT CAMERAS (L.A. TIMES – 24 MAY 2000)

Letter to editor: Traffic Cameras and Bill of Rights

Regarding "Red-Light Runners, Your Photos Are Ready," May 3 (2000):

I am quoted in Jeanne Wright's piece on traffic cameras as a speaker on behalf of the American Civil Liberties Union of Southern California.

Wright quotes Sgt. John Gambill of the Los Angeles Police Department, who says, in justifying videotape surveillance by the police, that law-abiding people "are being photographed every time they walk into a bank, go to an ATM or buy a Slurpee at 7-Eleven."

However, Wright did not publish my responsive quote, which pointed out that there is a significant and constitutional difference between acts by the government and acts by an individual or private group. The Bill of Rights is a limitation on the government, not on private citizens. The Bill of Rights does not preclude you from taping but does act as a limitation on government.

It is also interesting to note a few other things outside of the framework of my prior comments on the Bill of Rights:

* When a police officer personally gives a ticket to a person, that ticket is also a summons to appear in court and legal service of that summons. But under the photo program, tickets will be sent by first-class mail. How does the city prove that a person has been given a summons? It presumes delivery. But, as we all know, the mail doesn't always arrive, or a roommate may not give it to you, or the dormitory mail room may lose it, or it may simply be lost. This could be fundamentally unfair to the driver.

* When a police officer stops someone and writes a ticket, the individual is aware that a ticket has been given and of the facts surrounding the ticket. This gives the individual a fair chance to defend himself or herself. But when the ticket is mailed days or even weeks later, the individual may not even recall the day of the ticket, let alone the circumstances. If you pass through an intersection daily, try remembering what happened at that intersection even today. It is fundamentally unfair to ask an individual to defend a ticket under those circumstances.

* This program is expected to raise $7 million a year for the city of Los Angeles. Why not use the money to hire traffic officers? It is better for enforcement and fairer. Of course, if the city did not face the enormous liability of the Rampart Division police scandal, hiring more officers would be simple, but even with that, $7 million will buy a significant and fair program, and, in addition, those officers can do more than just monitor traffic if needed.

MICHAEL S. KLEIN
Los Angeles

AND FROM NORTHERN CALIFORNIA...(SILICON VALLEY MERCURY NEWS – 3 MARCH 2003)

Three Bay Area cities may end use of red-light cameras

Q: I heard that a red-light camera vendor named Redflex is being investigated for corruption. What does that mean for the red-light camera runners who deal with this same vendor?

Roy Puckett, Union City

A: Too early to say, but the Bay Area's love affair with using cameras to nab red-light runners may be cooling off.

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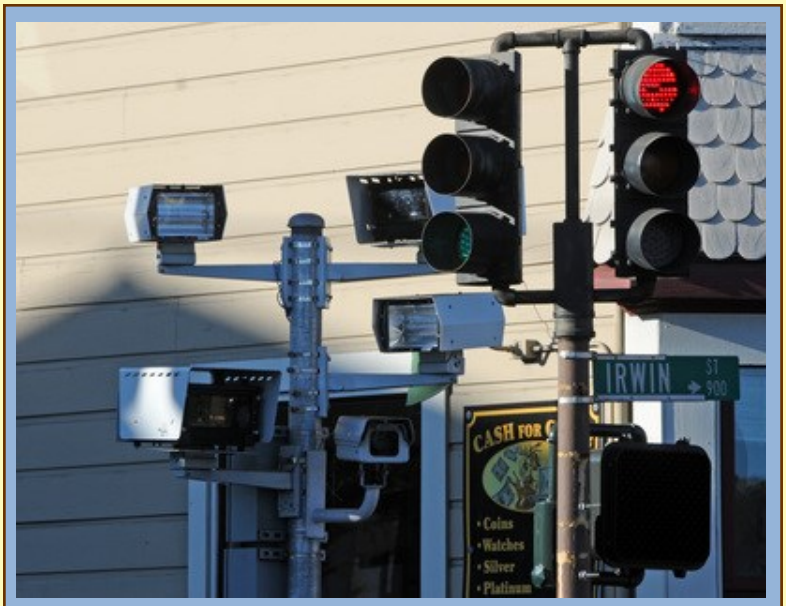


Red light cameras in San Rafael, Calif., 2012. (Alan Dep/IJ photo)

Hayward, Redwood City and San Rafael are considering ending their red-light camera programs. Tickets and accidents have fallen and so has the revenue to pay for the cameras. Redflex is the vendor in all three cities, and the firm has come under scrutiny amid accusations that top managers gave thousands of dollars in gifts to a former transportation official in Chicago who oversaw that city's cameras.

Most cities in the Bay Area say they are happy with their cameras and intend to keep them, including San Francisco, San Mateo, Fremont and Newark. Almost all cities in San Mateo and Alameda counties have red-light cameras. But there are no red-light cameras in Santa Clara and Contra Costa counties.

Q: What is your opinion of red-light camera tickets? Do they reduce traffic accidents or do cities want to increase revenues?

Jim Huen, Hayword

A: Money from these tickets begins to decline after a few years, as word gets out about the $500-plus fines and more drivers start stopping at red lights. A report

last month by the Insurance Institute for Highway Safety concluded that cameras in large cities across the U.S. helped reduced fatal red-light running crashes by 24 percent and the rate of all types of fatal crashes at signalized intersections by 17 percent.

Lt.-Jeff-the-Hayward-Camera-Man said the idea that the cameras are revenue generators is a "common misconception that is not true. In California, the vehicle code prohibits the use of enforcement cameras for revenue generation. Agencies seeking to use an automated red-light enforcement program have to show how the system will decrease accidents at specific intersections. Just this year new code sections have been added further restricting agencies from identifying drivers caught via the systems."

"Assuming the system does what it is supposed to do and reduce red-light violations, the system will produce fewer and fewer citations as the years progress, therefore the revenue stream will begin to dry," he says. "We are having internal discussions as to whether it is fiscally prudent to continue the automated systems, determine if other intersections may be better served by them or allowing the contracts to lapse."

Link to full story: http://www.mercurynews.com/mr-roadshow/ci_22692780/three-bay-area-cities-may-end-use-red

SEE ALSO…

Links for red-light cameras

Maps for red-light cameras around the United States: http://www.photoenforced.com/

Website devoted to fighting red-light cameras in California: www.highwayrobbery.net

YouTube video of news report about red-light cameras in Austin, Texas: http://www.youtube.com/watch?v=bF2MiFzUXz4

There are many more YouTube videos about red-light cameras that you can access once there.

Use of PhotoBlocker spray to defeat red-light and toll cameras: http://www.youtube.com/watch?v=bF2MiFzUXz4

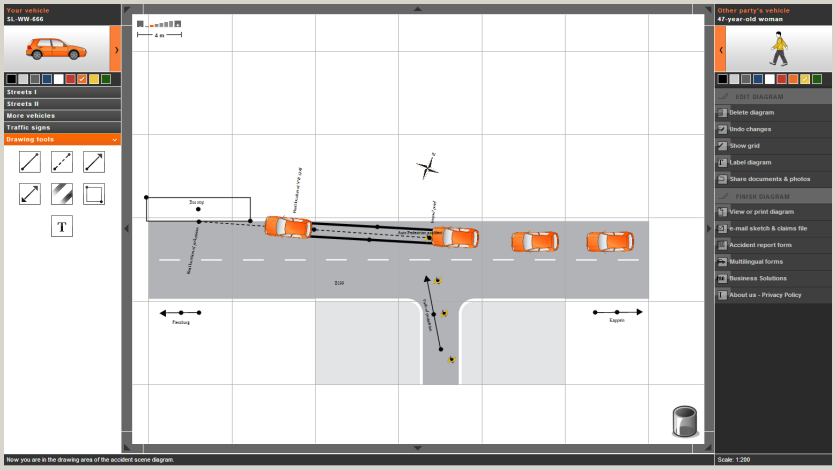
Editor's note: In researching the use of red-light cameras in California, I came across many more stories and videos on this topic than there is space for here. More links to these stories can be found at www.aoengr.com/AccidentReconstruction/Articles.html. Search for "red" to find these links.

TECHNICAL CORNER

A cool, little sketching program for accident scenes, and it's free

By Frank Owen, Alpha Omega Engineering, Inc., San Luis Obispo, California

While hunting around on the Internet one day, I came across this little web-based sketching program that's fun and easy to use. It's called Accidentsketch.com and is intended to be used to make simple sketches of accidents for insurance-claim purposes. The best part about it is that it costs nothing. Admittedly its features are limited, but it certainly makes a better sketch than most people could make by hand.



At left is a sketch I made of an auto/ped accident I'd already analyzed and put on my website. As can be seen in the drawing, the software is arranged with your own vehicle on the left and the other party's vehicle on the right. You can change the type of vehicle, having different kinds of vehicles–including trucks, motorcycles, pedestrians, etc.–to choose from. Simple roadway elements can be dragged and dropped into the grid squares. The sketch can be annotated too.

Once the diagram is made, an accident report can be automatically generated that includes the sketch as well as other information entered into the diagram about the vehicles. You can then add a description of the accident to complete the report. A sample report of the above accident can be found here.

This software is produced by the German company Claim Management Services. It is part of a suite of programs provided by this company for making diagrams of accident scenes, producing distance/time/location graphs, and making collision calculations. Unfortunately most of these programs and the descriptions of them are in German, but the company's website seems to indicate that these tools will increasingly be provided in English. For Accidentsketch.com there is a short introductory slide show, but the descriptions are in German. I found, however, that the program is so intuitive and easy to use, no slide show was needed to become quickly effective in using it.

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Sample email

To: editor@ca2rs.com
CC: treasurer@ca2rs.com
Subject: CA2RS newsletter ad for XYZ Accident Reconstruction Experts, Inc.

Please run my ad in the CAARS newsletter as follows:
Size: Half page
Number of issues: 4
Start date: March 2015

Please note that I have attached my ad copy to fit the ad space and that I have made payment to the CAARS treasurer.

Attachment: XYZAd.jpg

Meet the Member column

Editor's note: I would very much like to continue this column in future newsletter issues. Any member who would be willing to tell his or her story about his/her involvement in accident reconstruction, please let me know at editor@ca2rs.com. You may have a unique perspective or your own accident reconstruction process that you'd like to share with the membership. I will help you put the article together. CAARS members will benefit from hearing stories that others in the organization are willing to tell and the technology or expertise that they would be willing to share with the membership.