



Driving Freedom

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Is this the Future of Driving?

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Driving Freedoms

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The NMA Foundation is a non-profit organization dedicated to finding innovative ways to improve and protect the interests of North American motorists.

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THE NEW FRONTIER

BY GARY BILLER, PRESIDENT, NMA

“This is the new frontier that will likely be bigger than all the things we have dealt with since the NMA’s inception.”

Steve Carrellas, Chairman of the Board, NMA Foundation

Steve, like most engineers, is not prone to overstatement. So what is he talking about? To put Steve’s comment in context, I’ll share in just a bit some correspondence he and I recently exchanged. In short, he is reflecting on the effect to drivers’ rights that the technology of autonomous and connected cars will have for the foreseeable future.

We are not anti-technologists. Many of the innovations inspired by connected vehicle networks and even driverless cars can greatly improve personal safety on the road. (If you doubt that, look up intersection movement assist and left-turn assist.) No, the issue is that those with much to lose, such as the automakers and insurance companies, are already taking steps to protect their profitable bottom lines.

Not since the halcyon days of fighting the 55 mph national maximum speed limit has there been such a pressing need for motorists to pool resources and mount a sustained offensive on Washington, D.C. We must demand that proper protections be put into place and our rights upheld.

I doubt that in the lifetime of anyone reading this we will realize fully autonomous roadway trans-

port. We are nearly at the point however when driverless and driver-operated cars sharing the road will be commonplace. Who do you think will bear the lion’s share of blame when an accident occurs involving the two? Certainly not the deep-pocket players of the auto industry and peripheral services.

The effort is going to take resources well beyond anything we have ever gathered. As we put plans in place, I encourage you to think outside of our normal network of members to help us identify powerful supporters who share our deep desire to preserve individual driving freedoms in a world of personal mobility that is very much in transition.

Turn to Page 2 to read some thoughts that Steve and I shared recently. They help frame the issue and emphasize the need for not only developing a plan, but also for developing resources to put the plan into action.

The rest of this issue is likewise dedicated to exploring the impact that driverless and connected vehicles will have on the way we travel from one place to another. Feel free to share it with others who may be interested.

Your thoughts are welcome; we are in this together. 🚗

A Paradigm Shift in a World of Autonomous and Connected Cars

Steve Carrellas and Gary Biller discuss the impact of driverless and connected vehicle technology.

Steve Carrellas:

The auto industry is seeing the need to adapt from building and marketing products to providing services, e.g., car and ride sharing vs. car ownership. In the bigger picture of the longer term, a paradigm shift is expected in a world of autonomous and connected cars. The automakers have to adapt whether they want to or not.

We tend to talk about autonomous vehicles and connected cars together. They are different, but related things. The clear parallel is the impact of technology. Look at what the internet and mobile (wireless) devices did for personal computing and for connecting people, with all the inherent security and privacy issues.

The same or similar is impacting personal mobility. I see the connected part enabling the services but I believe



the onboard technology will be responsible for the actual autonomous driving. Data privacy will be a function of what the onboard systems store and/or transmit to the manufacturer or service provider. Can we be generally anonymous anymore?

This evolution can do wonders for personal mobility, and there will be a new battle with the transit advocates. Add electric cars to the mix to solve the clean generating source issue, and it will be harder for environmentalists

to attack the car. While autonomous vehicles will help rationalize traffic laws, there will still be problems along the way, including familiar concerns to the NMA.

Gary Biller:

Your synopsis on how the technology of autonomous vehicles is creating new alliances and reshaping the world of driving is an excellent one. While we have many members who are encouraging the NMA to wage war against such advances, I firmly believe as you do that we need to adapt and get out in front of the changes. The automakers are way ahead of us in planning and shaping the future world of driving. The NMA needs to do the same.

One of the largest unresolved issues,

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NMA WASHINGTON REPORT

BY ROBERT TALLEY, NMA LOBBYIST

The federal government is increasingly interested in how states could require the installation of ignition interlocks on the vehicles of all of those convicted of drunk driving. This would be a massive intrusion into the daily routine of those unfortunate enough to be subjected to the policy.

Interlock programs exist in 25 states. Generally, states require repeat drunk drivers or those with excessively high alcohol levels to install interlock devices. A driver must blow into the system to prove he or she is legally sober before the vehicle will start. The National Highway Traffic Safety Administration (NHTSA) has observed that in many circumstances the device tolerance is set well below the legal standard, generally .02 versus the legal .08 BAC standard. The result is the establishment of a de facto second BAC standard for interlock users.

In a 2013 manual NHTSA describes “best practices” for states that choose to adopt interlock mandates. Under current federal law, states are encouraged to adopt minimum enforcement standards for drunk driving. These include requiring all repeat offenders

to use either an ignition interlock for not less than one year or be subject to a one-year hard license suspension.

NHTSA is not satisfied with going after repeat offenders. Though it does not yet have authority to mandate action, the agency encourages states to enforce interlock devices on first-time offenders and to make interlock device installation mandatory. States are taking notice. Recently Maryland debated imposing mandatory interlock devices on all violators of drunk driving laws. Such a law would eliminate any discretion in determining the severity or circumstances surrounding a conviction and associated sentences.

Congress is interested as well. Most recently, Congresswoman Kathleen Rice (D-NY) introduced a bill that would effectively require states to adopt interlock devices for all individuals convicted of DUI with a minimum six-month term. Additionally, Rice would direct NHTSA to develop federal vehicle safety standards for the inclusion of interlock devices in all cars within 10 years. Advocates for the installation of these devices, including the manufacturers, claim that they will save 59,000 lives and \$343 Billion over 15 years.

Imposition of mandatory interlock systems ought to be a significant concern for all of us. Mandatory programs for all offenders fail to distinguish between repeat offenders and an individual who suffered one lapse of judgement. Further, establishing BAC standards for use of an interlock-equipped vehicle that is lower than the legal standard raises constitutional and legal questions. This is especially important because enforcement agencies monitor failed start attempts and there can be penalties for a failed attempt. In these cases, individuals who are legally sober are prevented from driving.

Finally, as history has shown, advocates for such programs are rarely satisfied with their first efforts. Standards are revisited and made more stringent, financial penalties are increased and the length of penalties is extended. If you think this isn't a concern, visit MADD's website where it states that individuals seeking to defeat the interlock device should “be required to have some other form of electronic monitoring, like continuous alcohol-sensing ankle bracelets.” 🚗

A Paradigm Shift

(Continued from Page 2)

with drivers being in the low position on the totem pole, is liability. Autonomous vehicles are going to malfunction and accidents/fatalities are still going to happen. Unlike any issue we've ever faced—from the 55 mph NMSL to black box data ownership—the transition to driverless car technology is going to require a massive effort legislatively for proper legal protections to be put into place, nationally and at the state level.

Steve:

It sounds like you think that motorist liability is the biggest concern overall.

Gary:

Yes, I really believe from a motorists' rights standpoint that liability is the most critical issue we will be facing, particularly because those who stand to make money off the new technologies—and have their profitability impacted if things don't go

smoothly during implementation—will use their substantial political influence and financial leverage to protect their interests. That will put our rights as drivers right in the crosshairs for liability issues as more of the autonomous technology is introduced and, for lack of a more descriptive phrase, s*!% happens.

Who else other than the NMA will be protecting drivers' rights during this whole process? 🚗

Self-Driving Cars Will Thrive with More Regulation

By Megan McArdle. Originally published on BloombergView.com

You don't often hear a libertarian praising a federal regulator when it starts offering "guidance" and "coordination" for some innovative industry. Well, mark your calendars, folks, because here goes: The National Highway Traffic Safety Administration is preparing to get deeper into regulation of self-driving cars. And that's great news.

Readers know that I'm a sort of skeptical booster of self-driving cars. I think that we will get there, eventually. And I'm certainly hoping it happens before I shuffle off this mortal coil. But I think that it will take longer than the less skeptical boosters hope, and that the road will be rockier than they are expecting, particularly in the U.S.

The goal is to get to what experts call "Level 4 Automation," a car that can truly pilot itself at all times without driver intervention. No commercially available car even yet has Level 3 automation, where the driver can cede control and read a novel while the car does the work, ready to take over when the car moves into a tougher environment, such as an urban street. "Self-driving" functionality in current cars is Level 2: The car does the work, but you have to have a hand on the wheel, ready to take over in a split second.

Level 2 automation is not really a self-driving car, and from the driver's perspective, sitting there staring at the road and waiting for something to happen is probably worse than just driving the car. Moreover, since people don't actually pay as much attention as they're supposed to when using these features, these systems will probably also cause some accidents, even as they prevent others.

There are some big challenges on the way to Level 4:

Technology. We think that computers are smarter than us, but what they actu-



ally are is ferociously single minded. This makes it hard for them to deal with conditions that a human handles easily—like snow that obscures lane markers, or an emergency detour sign. Cars are already better than us at quickly noticing and predicting the movements of other cars. They're much worse at dealing with the less expected adventures, the splendiferous array of surprises that fill everyday life. There are still a lot of gaps to fill in before a car can handle an urban street, or even a suburban cul-de-sac, where the computer has a lot more things than cars to deal with.

Regulation. Regulators are by their very nature risk averse. Tragedies get laid at their door, while the main result of a success is that someone else gets the credit for whatever great new thing the regulator didn't prevent from happening. Innovating in a heavily regulated area, such as the national highway system, is thus a bit of a challenge. In the U.S., this difficulty is compounded by the fact that state and local governments also like to get in on the action. To get self-driving cars on our roads, we need a comprehensive federal framework that encourages innovation.

Liability. Self-driving cars will probably prevent thousands of accidental deaths every year. You would think that this would mean that liability costs would go down. However, it's more complicated than that. Right now, in the overwhelming majority of car accidents, the liability resides with the driver. That places sharp limits on how much a plaintiff can expect to recover, because most people do not have much in the way of assets in excess of the value of their liability insurance. The expected value of an average personal injury suit is therefore modest.

Suing Ford, on the other hand, is a very different matter. Ford has a lot of assets, and juries are not shy about giving it to sympathetic people who have had something terrible happen. Self-driving cars will move the liability for accidents from drivers to deep-pocketed companies, so even though the number of accidents will go down, the expected value of filing a lawsuit will go up.

Ideally, regulators will establish some sort of safe harbor for companies that make these systems: comply

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with these standards, and you will be deemed to be shielded from judgment. Even more ideally, we'd move toward a no-fault standard for self-driving car accidents, something like our national vaccine injury program: Everyone pays into the pool, and people who, say, get hit by a self-driving car that met applicable regulatory standards, will be eligible for scheduled damages without having to prove fault on the part of the manufacturer.

As you can see, there's a long way to go before you can climb behind the wheel of a car, say "Home, Jeeves," and take a nap. The good news is that, pegged to the State of the Union address, the National Highway Traffic Safety Administration has announced an initiative to help streamline the process. The president's fiscal 2017 budget proposes

\$4 billion for developing connected car systems, and that will certainly help. More important, however, is that the NHTSA is moving forward to offer more regulatory guidance on how we get there.

That's good news. As much as I love decentralized, spontaneously ordered innovation, self-driving cars cannot be a free-form jazz odyssey. There are too many human drivers still on the road, and too big a patchwork of state and local laws to handle. A federal agency with a clear vision needs to be at the helm.

The bad news comes in two pieces. First, they're pledging to develop better guidelines and work with states to come up with a consistent national policy. We could still end up with state-by-state guidelines that are needlessly restrictive (like California's insistence that self-driving cars must have steering

wheels), or individual states could balk.

The other bad news is that the word "liability" appears nowhere in the regulator's announcement. That's not surprising, really. NHTSA is a safety regulator, not a court of law, so liability isn't really in its purview; that's the job of state lawmakers. But someone needs to get a handle on this problem, lest the lawyers prevent automakers from putting more highly automated cars on the road—or early lawsuits set back the process by years.

Nonetheless, we are moving forward, and frankly, faster than I thought regulators would ever allow. So two cheers for NHTSA. I'll save the third cheer for when I see the actual guidance. 🚗

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Connected/Autonomous Vehicles Increase Hacking Threats

By 2025, 81 million new connected cars will be sold each year across the world, according to global automotive forecasting firm SBD. Beyond the legal and liability issues associated with autonomous and connected vehicles, motorists should be concerned with the potential for hacking. And as automakers pour connected features into their vehicles, the potential for hacking grows. The advent of Apple's CarPlay and Android Auto, both of which allow your cell phone to interface with the connected features on your car, only increase that threat.

There have already been several high-profile vehicle hacking cases. Last year cyber-security researchers remotely hacked into a moving Jeep Cherokee and took control of the vehicle's environmental controls, turned on the radio and windshield wipers, and ultimately disabled the vehicle completely. The case led to a recall of 1.4 million Fiat Chrysler vehicles to



install a security patch to Chrysler's Uconnect dashboard computers.

More recently, researchers discovered a vulnerability in the mobile app that interfaces with Nissan's Leaf electric vehicle. Armed with only the vehicle identification number and some basic web-development skills, hackers accessed the vehicle's climate controls and trip logs. By manipulating the environmental controls, hackers could theoretically drain the vehicle's battery. Nissan has since disabled the app used by thousands of Leaf owners.

Researchers first demonstrated that cars were susceptible to cyber attack

in 2010, and dozens of vulnerabilities have been uncovered since then. Predictably, automakers have been slow to acknowledge the problem or respond. But within the last year, several have appointed cyber-security directors.

The feds are also starting to pay attention. In January Transportation Secretary Anthony Foxx announced \$3.9 billion in federal funding over 10 years to spur the development of autonomous and connected vehicles. Part of that will go toward addressing hacking and cyber-security issues.

Interestingly enough, some observers don't believe the threat of physical harm to drivers or their vehicles will be the primary motivation behind vehicle hacking. As with many things, it will boil down to money. Thanks to the phone/vehicle interfaces that exist, much of a person's financial and personal data will be accessible through their vehicle connections. It will likely prove too tempting for thieves to resist. 🚗

How Driverless Cars Will Change the Landscape, Legal and Otherwise



Editor's Note: The NMA has long been concerned about what happens when a driverless vehicle

has an accident. Who will be liable? The occupant? The vehicle manufacturer? The software designer? Many others are asking similar questions including the lawyers who will have to navigate the legal landscape created by autonomous vehicles.

One such observer is Nathan Greenblatt, an intellectual property attorney who wrote a lengthy piece titled "Self-Driving Cars Will Be Ready Before Our Laws Are," covering the legal challenges presented by driverless vehicles. We use some of his observations to illustrate our main point that legal protections must keep pace with technological advances to adequately protect motorists. His full article can be found at <http://spectrum.ieee.org/transportation/advanced-cars/selfdriving-cars-willbe-ready-before-our-laws-are/>.

Keep in mind that Greenblatt writes from the perspective of the automakers. His proposed legal framework to address liability issues is clearly designed to limit damage to that interest group. Nevertheless his insight helps illustrate the legal pitfalls that occupants of driverless vehicles may face in case of accident.

What will happen when a driverless vehicle strikes and kills a pedestrian for the first time? What laws will apply? The answers to these provocative questions are unclear, according to Greenblatt. That's because today the law

is playing catch-up to the technology, which is moving at a breakneck pace, thanks to the likes of Google, Apple and the automakers. Greenblatt sums up the current state of affairs this way:

The law now assumes that a human being is in the driver's seat, which is why Google's professional drivers and Tesla owners are supposed to keep their hands near the wheel and their eyes on the road. (Tesla's cars use beeps and other warnings to make sure they do so.) That makes the vehicles street legal for now, but it doesn't help speed the rollout of fully autonomous vehicles.

Not only is the law behind the driverless car curve, he says, our roads are as well:



We've invested billions of dollars in a transportation infrastructure designed for human vision, not at all for computers. But it's possible to make changes to the laws that govern the roads and the infrastructure, and those could go a long way toward making driverless cars the rule instead of the rare exception.

But, no matter how fool-proof the technology becomes and how quickly laws evolve, accidents will happen and lawsuits will follow. Greenblatt points to the 17 Google car accidents that have occurred to date and says there is no available case law that applies. He also asserts that the robot was at fault in none of them.

That may be true in the legal sense. But many of those accidents occurred because driverless vehicles can't adjust to prevailing road conditions (they always follow the speed limit) and end up getting hit from

behind. From that standpoint, they do bear some responsibility for the accidents, as we point out in the e-newsletter republished on Page 7.

This is not to say that accidents and lawsuits involving autonomous machines are theoretical, Greenblatt explains. He points to a 2009 case in which a malfunctioning automatic control system on a train led to a crash and subsequently to 21 lawsuits and many out-of-court claims. Attorneys have filed lawsuits even without accidents, he says:



A 2015 lawsuit against Ford, GM, and Toyota accused the companies of "hawking vehicles that are vulnerable to hackers who could hypothetically wrest control of essential functions such as brakes and steering."

As we describe in the aforementioned newsletter, California regulations will allow driverless cars on the roads as long as a licensed and trained human is on board to assume control in case something goes wrong. Several other states including Florida and Nevada have also passed laws to allow testing of driverless cars, but there currently is no nationwide regulatory framework to govern a large-scale rollout of driverless cars.

That may be changing. In January Transportation Secretary Anthony Foxx announced \$3.9 billion in federal funding over 10 years to spur the development of autonomous and connected vehicles. And over the next six months, the Department of Transportation and National Highway Traffic Safety Administration (NHTSA) will develop best practices for the safe

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NMA E-Newsletter #363: Removing Humans from the Equation

Originally published December 27th, 2015

We see many news stories touting the potential benefits of driverless cars: increased mobility for the elderly, congestion mitigation and safer roads to name a few. But amid the enthusiasm, we ran across two stories this week that illustrate the conflicts and contradictions that arise when trying to reconcile the role driverless cars will play in society.

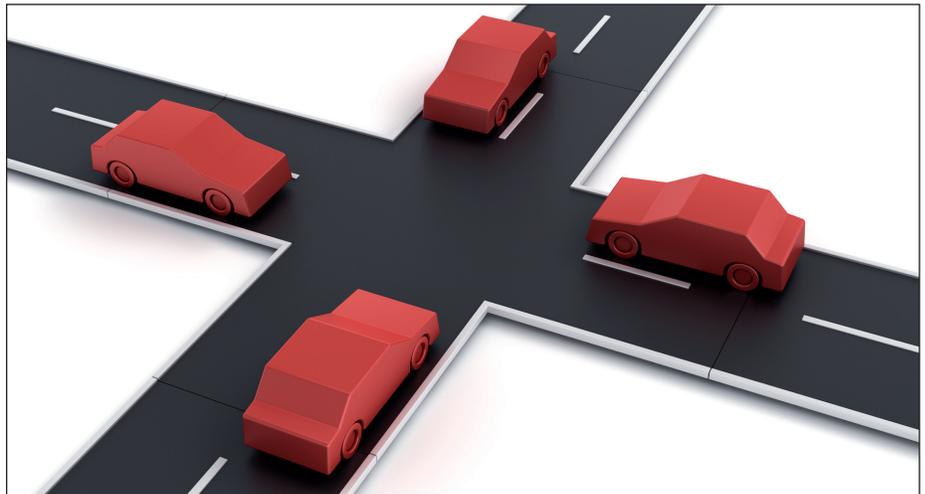
The first comes from California, where Google has been road testing autonomous vehicles for more than a year. The California Department of Motor Vehicles recently unveiled draft regulations governing the rollout of autonomous vehicles on the state's highways. Clearly California is worried about the safety ramifications when humans interact with machines that have minds of their own.

The regulations require manufacturers to comply with specific safety requirements and to conduct third-party vehicle performance testing. Manufacturers will also have to provide the state with regular reports and comply with privacy and cyber-security requirements.

Now here's where it gets interesting. The regulations also require the "operator" of a driverless car to be a licensed driver and to possess an "autonomous vehicle operator certificate issued by the DMV." (Read that through a couple of times and let the inherent contradiction sink in.)

The operator must also be trained to take control of the vehicle in the event of a systems failure or emergency. To that end, autonomous vehicles must have steering wheels and control pedals, things the original Google car did not have.

Also note that fewer young people are bothering to get driver's licenses these days for a variety of reasons. Under the



California regime, which may provide a template for other states, they could not "operate" a driverless vehicle.

Google said it is "gravely disappointed" by the proposed rules, but we credit California for addressing issues we've been raising for years: What happens if a driverless car can't respond appropriately to changing road conditions or if its systems fail? Will the operator be able to assume control? Who's responsible in an accident?

These are not inconsequential questions considering our next story. Seems that driverless cars have been racking up accidents at twice the rate of human-driven cars. The reason? They're getting hit from behind because they're programmed to never exceed the speed limit. GM researchers admit this becomes particularly problematic (and dangerous?) when driverless cars try to merge into faster traffic or cross multiple highway lanes to exit. As a result, their human operators have to step in to complete the maneuver safely.

The article argues that the driverless cars are "not at fault" since they're typically hit by "inattentive or aggressive humans unaccustomed to machine motorists that always follow the rules and proceed with caution." Maybe autonomous vehi-

cles aren't at fault in the legal sense, but don't they bear some responsibility since they're unable to adjust to road conditions as a human driver would? Speeding up to merge or to avoid an accident is the responsible, and predictable, thing to do.

The GM researchers are debating the wisdom of always sticking to the speed limit, but so far, strict adherence is the rule. In contrast, a competent, situationally aware human driver will technically break the law—for example, crossing the double yellow line to avoid a bicyclist—for safety sake.

If driverless cars can't learn to bend the rules, to adapt, they will always be in conflict with human-driven vehicles. Despite California's regulatory efforts, it's unreasonable to assume there will always be a properly licensed and trained human ready to take control. After all, isn't the ultimate goal of driverless technology to remove humans from the driving equation completely?

If human-driven cars are removed from the roads entirely, vehicle conflicts may become a thing of the past, but what happens when four driverless cars pull up to a four-way intersection simultaneously? Sounds like the beginning to a bad joke. 🤖

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operation of autonomous vehicles.

Carmakers appear to have embraced the feds' assertive role and understand that consistent standards and policies will make it easier for them to operate, while reducing uncertainty in the marketplace. Greenblatt puts it this way:



We can't put off changing the laws until the advent of robotic driving, because today's laws leave a lot of room

for uncertainty, and uncertainty stalls progress. A car company can't be expected to invest in putting out a new fleet of autonomous cars when it could be forced to pull them all off the road after the first accident. We won't have truly autonomous cars on the road until this gets sorted out.

He says the carmakers want to know two things in the event of an accident: Under what circumstances will the carmaker be held responsible and how much will it cost them?

Greenblatt and others predict an accident involving a driverless car will likely lead to a major, big-dollar design-defect lawsuit. The outcome, he says, will be hard to predict and will depend on several factors:

Generally, the key question in a product liability lawsuit is whether the product had a "defective condition" that was "unreasonably dangerous." This often involves determining whether the product designer could have made the product safer at an acceptable cost. But what's "reasonable" for a new technology? Is "reasonably safe" defined by the average human driver, the perfect human driver, or the perfect computer driver?

In addition to expensive litigation with the possibility of punitive damages, Greenblatt says carmakers are also concerned about the costs of a potential recall. And rightfully so. GM's recent ignition switch recall cost the company \$4.1 billion, and Volkswagen's diesel emissions fiasco will likely set the company back more than \$7 billion.

For carmakers, Greenblatt believes the solution to the lawsuit problem is to treat human and computer drivers equally from a legal standpoint:

Instead of applying design-defect laws to computer drivers, use ordinary negligence laws. That is, a computer driver should be held liable only if a human driver who took the same actions in the same circumstances would be held liable.

Following the basic principles of negligence law, he argues, it isn't necessary to examine the "mind" or motivation of the computer driver (the computer code) any more so than those of the human driver. Conduct is the only thing under consideration.

Translated, that means the fact that a driverless car's software failed would be irrelevant; only the actions of the vehicle on the road would be considered for legal purposes.

Greenblatt gives the following example to illustrate how this would work in favor the carmaker:



For example, a computer driver that runs a red light and causes an accident would be found liable. Damages imposed on the carmaker (which is responsible for the computer driver's actions) would be equal to the damages that would be imposed on a human driver. Litigation costs would be similar, and the high costs of a design-defect suit could be avoided. The carmaker would still have a financial incentive to improve safety.

In fact, the manufacturer would have greater incentives than with a human-driven vehicle, because of publicity concerns. Correction of systemic problems could be implemented via a predictable mechanism, such as a mandatory crash-review program with government oversight, without excessive risk to the manufacturer.



For Greenblatt, predictability is critical. He argues that insurance companies have a century's worth of experience

predicting costs for human-caused auto accidents. Likewise, the courts have a century's worth of benchmarks to consider when making comparisons.

He says this will all streamline court cases involving self-driving cars, shield manufacturers from excessive financial risk and still compensate accident victims no less than they are today.

Such predictability would allow the auto manufacturers to pay about the same, or less, for insurance per vehicle as the average human driver does.

Settling the legal uncertainties isn't the only obstacle to advancing the spread of driverless vehicles. The highway infrastructure will also have to become more compatible with the way driverless cars operate, says Greenblatt.

Today, he explains, the roads are set up for human drivers who pay attention to visual cues; drivers know the rules and respond intuitively.

For driverless vehicles, it's not that easy. The technology to allow driverless cars the same level of object tracking and recognition, along with the ability to know how to react in every situation, is still years away.

Greenblatt argues that implementation of technology that allows driverless cars to communicate with the infra-

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structure and other vehicles would greatly improve safety performance:



Radio frequency transmitters in traffic lights, for example, could tell a computer driver if a light is green or red more quickly and with greater accuracy than a machine vision system struggling with shadows and glare.

The downside to this approach, he says, is cost, which could be justified since computer-driven vehicles are inherently safer than their human-controlled counterparts.

Autonomous vehicles don't get distracted or fall asleep at the wheel. They have 360-degree vision and can see through fog and in the dark. They can receive signals from other vehicles and from the infrastructure itself and thereby anticipate upcoming road conditions. They react more quickly than humans to avoid hazards.

Computer drivers, he says, can undergo far more rigorous testing than the typical 20-minute road test performed through most DMVs. Through the use of recorded or virtual information, a computer driver's ability to safely drive could be tested over a million miles before issuing a license, he says.

Finally, he notes, driverless vehicles can learn from the experiences of every other driverless vehicle on the road.

Greenblatt points out this all has the potential to prevent 30,000 traffic fatalities and two million injuries annually in the United States alone, as well as billions in savings on accident-related costs and lost productivity.

Greenblatt predicts driverless technology will disrupt many sectors of the economy. Ridesharing services like Uber and Lyft as well as traditional taxi services will feel the changes immediately:

Uber is already bullish on replacing its human drivers with computers, and it has hired 50 Carnegie Mellon University scientists to develop the technology. Uber may be able to count on computers not filing a class-action lawsuit against the company, but it should plan for angry human former drivers accusing it of "economic terrorism" and lengthy negotiations with regulators. And Uber will not be the only robo-taxi startup.

Greenblatt speculates that self-driving cars will also change how cars are used and ultimately alter the traditional ownership model:



Currently, cars typically are parked 95 percent of the time. If people ordered a self-driving car only when needed, utilization rates would rise, ownership costs would decline, and as an added benefit, we would typically ride in newer-model cars with a smaller environmental footprint. But what will that do to car sales?

That smaller environmental footprint will also affect city design, he says, by reducing the amount of land devoted to parking. This is because self-driving cars can park themselves in peripheral areas, or, in a shared-ownership/taxi model, they would be constantly on the move.

Greenblatt admits that driverless vehicles do raise some privacy concerns but appears naïve regarding the potential consequences of being tracked everywhere we go:



Whether the gigabytes of generated information can be permanently stored—and how they can be used later—is not settled.

For the record, we're quite certain someone will figure out a way to store

all those valuable gigabytes and figure what to do with them. It may not be the car companies, but Google is in the data business, and it will certainly want to mine the data its cars, and other driverless vehicles, generate.

As we discussed in the newsletter reprinted on Page 7, the NMA questions the wisdom of removing humans from the driving equation. But for Greenblatt, and many others, making human drivers obsolete is the ultimate goal. He concludes with this:

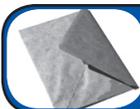
These issues will be worked out because ultimately we want to choose the best technology in terms of costs and benefits to society. So 50 years from now, in a world with no traffic accidents, people will look back and conclude that human drivers were a design defect.

Don't say we didn't warn you. 🚗

Editor's Note

Serving as Managing Editor of *Driving Freedoms* for the last four years has been one of the most enjoyable and enlightening experiences of my career. Where else can you learn and write about everything from driverless cars to civil asset forfeiture? It's been fascinating. But, a new career opportunity is taking me in a different direction, and I will be leaving the NMA at the end of April. I'd like to thank the staff at the NMA and NMA Foundation as well as everyone who has contributed to *Driving Freedoms* for making my job so interesting and fun. I'd also like to thank you, our members, for your diligent support of drivers' rights, and I ask you to continue your support of the NMA and NMA Foundation for years to come.

—John Bowman



MEMBERS WRITE

The views expressed below do not necessarily represent those of the NMA. Letters are welcomed and should not exceed 300 words. They may be edited for length or clarity. Full-length articles will also be considered and should not exceed 600 words. Send to nma@motorists.org or mail to NMA, 402 W 2nd St., Waunakee, WI 53597

Editor's Note: In this issue, members weigh in on topics we've recently covered in our weekly e-newsletter. The first is in response to the feds using a slight uptick in the highway fatality rate as an excuse to push for more safety programs. The second addresses police using technology to shake down motorists on the side of the road, otherwise known as civil forfeiture. The final letter takes issue with another member's observation in reference to Real ID that "only individuals that have something to hide would be against such a requirement."

If NHSTA administrator Rosekind wants to seriously address safety issues, especially the 94 percent of crashes caused by human error, he can start by encouraging some kind of real, useful driver education programs in high schools to teach kids good driving practices from the start. As much as I rail about idiot drivers, it occurs to me that many of them just never learned the basics like using good following distance, watching others around you, lane courtesy, driving for conditions and to put down your devices.

It's a lot easier to train someone right in the beginning, than to get them to unlearn bad habits later, and certainly cheaper than applying a lot of expensive and intrusive (you know there will be a tracking component to all those automated vehicles) because drivers can't, or won't, learn how to operate a vehicle competently.

Rosekind also overlooks a couple

of things about fatality increases, and DWI. DWI first: Lowering the BAC threshold isn't going to solve anything, but it will turn a lot of people into criminals who have not had enough to drink to materially affect their ability to drive. As it is, CDL holders are over the limit at .04. It doesn't take much to get there. But the reality is, judging by news reports, most DWI arrests and fatalities occur well over the current .08 limit, and even well above the previous .10 limit. So that change will not prevent the most egregious results of DWI, but it will snag a lot of folks who had one beer with dinner and are otherwise not a hazard to anyone.

I expect there will be a push at some point to cap speed limits at something like 65 of 70 mph (the American Trucking Associations is promoting such a plan, not that anyone outside their organization wants it), which, like the 55 mph limit from the 1970s, will just create another class of lawbreakers, and, as it was then, be pure folly. Rosekind must not be a NPR listener, or he would surely have heard *Car Talk* hosts Tom and Ray's tongue-in-cheek proposal of a national 35 mph speed limit. The scary thing is, guys like him, for whom the sky is always falling, might seriously consider it.

Tom Beckett, Siloam Springs, AR

The "instant civil forfeiture" program including roadside collection programs without judicial intervention are not the fault of participating municipalities nor

even companies that get a cut of the take. Responsibility for these miscarriages of justice lies 100 percent with the electorate that is getting fleeced.

It is the ordinary citizen (including all motorists) who participate in the electoral process, enabling the election of those who effect the appointment of judges who torture the law to make such confiscations "legal." The Constitution clearly reminds us of "due process," which courts routinely ignore. Citizen election of administrations that appoint judges who can skew the law against the Constitution is the villain, not specifically those who take advantage of such rulings. Cut off the head of the snake and confiscatory practices will go away.

Taking personal responsibility for those who rule us is a never-ending, tedious task. Eternal vigilance is arduous, how many of us are up to it? Failure to do so results in bad law.

A New York Member

What do we have to hide? Everything that matters to us! Sorry.

Having to carry a little card might not seem inconvenient. Being stopped and detained, especially when you are in a hurry, is not a minor inconvenience. We have the right to travel. This whole scheme undermines this. The driver's license is routinely used for extortion purposes. If you don't adhere strictly to the rules, whether you cause any harm or not, you are forced to pay money to the government, which then wastes it. This is wrong. No fines should be collected when no harm is done.

I would prefer to remain anonymous, thank you very much! And I don't do anything that poses a problem to anyone. I, too, have stopped flying. It dismays me that the American people accepted this so readily. Hopefully, those 28 states will continue to refuse to comply.

An Arizona Member





DRIVING NEWS

This information is current at time of printing. Get daily driving news updates from across the country through the “NMA Driving News” area of our website. For even more in-depth coverage of motorists’ issues from some of the country’s leading commentators, visit the NMA Blog at www.motorists.org/blog/.

California

The Los Angeles City Council agreed to pay nearly \$1 million to a former officer who said the police department retaliated against him for not participating in an illegal traffic ticket quota system. The agreement resolves a 2014 lawsuit filed by Dan Gregg, a former officer with the Los Angeles Police Department’s West Traffic Division. Gregg said that he was denied a promotion after complaining about the alleged quota system and that he was instructed to deny overtime to other officers who did not meet their quotas.

Delaware

The number of motorists ticketed by Wilmington’s red-light cameras soared in 2014, but that increase in enforcement also coincided with an uptick in the number of collisions in and around those intersections. Nevertheless, city officials insist red-light cameras make roads safer. Wilmington earned \$2.5 million in fiscal year 2014 after 41,926 vehicles were nabbed from its 34 cameras located at 31 intersections, according to a published report.

Florida

Tampa’s red-light camera program again is under fire as a new report shows accidents at some camera-monitored intersections are on the rise. The report produced by the Tampa Police Department showed crashes at intersections increased by 39 percent since the 2010 fiscal year, one year before the city installed the cameras. That is less than the

46 percent increase in crashes citywide over the same period. The numbers still alarmed some city council members, who said they show that cameras are not making intersections safer.

Illinois

A federal jury convicted a former Chicago transportation official for taking bribes to steer \$100 million in red-light camera contracts to Redflex. Jurors returned with guilty verdicts on all 20 counts against John Bills, the former second-in-command at Chicago’s Department of Transportation. Bills was accused of accepting envelopes stuffed with cash, along with gifts—including condos in two states and a Mercedes—to help the Phoenix-based company obtain contracts in a decade-long scheme.

A report out of Chicago has found a pattern of intentional damage to the dash cams in squad cars by police officers, apparently to disable them. Maintenance records reveal more than 100 instances between September 1, 2014 and July 16, 2015 when dashcam equipment was missing or inoperable. Records show 90 occurrences when no microphones were found during inspections of cruisers that should have carried them. In 30 other incidents, inspectors say recording systems had either not been activated or were “intentionally defeated.”

Iowa

A four-year-old Missouri girl received a court summons in the form of a speed camera ticket from Iowa. The girl’s

mother, Cherish Skinner, said it started when a traffic camera on Interstate 235 in Des Moines caught a driver from Missouri allegedly speeding on Thanksgiving weekend. The citation was addressed to both Todd Anderson and his four-year-old daughter Ashley Anderson, but Skinner said Ashley was at home in Missouri during the incident. Iowa’s speed camera tickets are a civil penalty, but Skinner is worried that there will be a warrant out for her daughter’s arrest if the problem is not resolved.

Maryland

Baltimore transportation officials announced plans to revive the city’s red-light and speed camera system. This will be the city’s third program after two failed attempts in which motorists received tickets in error. The system, which was run for years by Xerox State & Local Solutions and briefly by Brekford Corp., was shut down in April 2013. A spokesperson said the vendor will be paid a flat rate for each camera, instead of the previous “bounty system,” in which the company was paid for each citation. The city will also require the winning bidder to ensure at least 95 percent accuracy in the tickets issued.

Minnesota

In keeping with Vision Zero initiatives spreading across the country, bike lobbyists in Minnesota are pushing for a lower 25 mph speed limit for Minneapolis, St. Paul and other area communities. Supporters argue a lower limit would reduce the crash danger for pedestrians and cyclists and get more people out exercising. The present urban limit of 30 mph was cited by the League of American Bicyclists as an area needing improvement when Minneapolis recently tried unsuccessfully to upgrade its status as a bike-friendly community from gold to platinum.

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Michigan

Ann Arbor officials want to retain local control over speed limits on city streets, and they are fighting state legislation they say could take that away. The Ann Arbor City Council voted unanimously in favor of a resolution opposing legislation that would amend the Michigan Vehicle Code to change the provisions for setting speed limits. Under the proposal, speed limits would be set at the 85th percentile speed of free-flowing traffic under ideal conditions on the fastest portion of a road segment.

Mississippi

The Mississippi Sheriffs' Association is once again pushing for legislation to allow sheriff's departments across the state to use radar for speed enforcement. Currently only deputies in one county can use radar, along with city and college police, and state patrol officers. For decades, deputies have been restricted from using radar over concerns that it would encourage the spread of speed traps in rural areas.

New Jersey

An on-duty New Jersey state trooper accused of driving drunk had a blood-alcohol level twice the legal limit when he crashed into another car at a rest stop on the Garden State Parkway, police records show. Documents obtained by NJ.com through an open records request showed the officer's blood-alcohol level was 0.16. The driver of the other car claimed the trooper offered her \$1,000 if she agreed not to report the incident.

New York

Gov. Andrew Cuomo signed a bill that will bring some relief to state motorists. The bill, sponsored by Queens Assembly member Michael Den-Dekker, bans towns and localities in New York State from charging

finances, surcharges or administrative fees for traffic violations that are dismissed by a hearing officer in a state Department of Motor Vehicles court. The law also prohibits fines and surcharges on violations that are plea-bargained to lesser charges.

Ohio

The tiny Village of Brice is once again making a big splash. The town, often called a speed trap, is beefing up its enforcement arsenal by installing speed cameras. However, state law requires each camera to be physically manned by a police officer. The Village has only one, Chief Chris Iacone. The rest were laid off in October because "the Village has a deficiency of funding," said Mayor Amy Evans.

New York

Three motorists who claim they were trapped in the same unlawful checkpoint set up by NYPD highway police in Queens have received a green light to take their lawsuit to trial, a federal judge ruled. The three were stopped between 2011 and 2014 on the one-lane service ramp leading from the Grand Central Parkway to the Long Island Expressway. There were no traffic cones, warning lights, or flares — only an unmarked vehicle jutting into the roadway which forced the drivers to slow down and stop when they were approached by police, according to papers filed in federal court.

Texas

After implementing automated license plate reading technology, revenue from traffic fines in Port Arthur, Texas, have increased 180 percent. Upon combining the technology with its eight-man Traffic Enforcement Unit, the Port Arthur Police Department has increased its traffic fine income from \$750,000 in 2006 to \$2.1 million in 2014.

Utah

A proposed bill takes aim at municipalities that receive a large percentage of their revenue from traffic fines. Senate Bill 100 would cap the amount of money a city or town can keep from traffic fines at 25 percent of the city's annual revenue. If passed, the bill could have major implications for speed trap towns like Mantua. Last year it was reported that police in the 741-person town managed to write 2,185 traffic tickets in fiscal year 2014. Those tickets brought in more than \$221,000 in speeding fines, which was around 34 percent of Mantua's annual revenue.

Washington, D.C.

Traffic fines in the district could skyrocket if Vision Zero advocates have their way. Under a proposed Vision Zero regulatory plan, speeding fines could increase to \$1,000 on the upper end, and fines for 20 other traffic offenses would increase as well. In addition, eight new traffic offenses would be created, including speeding in a safe zone (\$100), failure to yield to a bus entering a traffic lane (\$500) and failure to yield to first responders en route to the scene of a crash (\$500).

Washington State

Chemists at Washington State University in Pullman have teamed with instrument maker Chemring to develop a "drugalyzer" that can detect whether a driver is intoxicated on marijuana. Similar efforts are being conducted in North America by breathalyzer maker Lifeloc and Cannabix Technologies of Canada. With Washington and Colorado having legalized marijuana and established limits for driver impairment, the race now is to see who can create a device to take a quick, accurate measure of how much THC (the active ingredient in marijuana) is in the bloodstream. 🚗