HIGHLY AUTOMATED HORROR
Addressing The Threats Of Self-Driving Vehicles

By Rob Dingman

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The prospect of driverless cars on the roadway is horrifying. Although I am concerned about automated vehicles having the capability to detect vehicles as small as motorcycles as part of their crash avoidance systems, I am even more horrified by the prospect that automated vehicle systems are not being developed with motorcyclists in mind. What is truly disconcerting is the possibility that in a rush to deploy this technology we will see motorcycles excluded from certain roadways, or worse, banned from our roadways altogether.

In September, the U.S. Department of Transportation issued guidelines regarding what they term as "highly automated vehicles" or HAVs. In an op-ed published in the *Pittsburgh Post-Gazette*, President Obama laid out the safety benefits of automated vehicles citing the fact that 35,200 people died on U.S. roadways in 2015 alone with 94 percent of those resulting from "human error or choice." This startling statistic likely comes as no surprise to motorcyclists who know that a significant percentage of motorcycle crashes are caused by other motorists violating our right of way.

It is hard to argue with the logic behind driverless cars. After all, a driverless car can't drive drunk or be distracted and would presumably be programmed to obey the speed limit. All of these behaviors are over-represented in motor vehicle crash and fatality statistics.

The utilization of technology to reduce or eliminate human error and bad choices is certainly laudable, but if that technology is not developed in a manner that takes the detection of motorcycles into consideration, it is worthless. Worthless, of course, unless a decision is made to exclude any vehicle that is undetectable by the technology from sharing the roadway with HAVs. Non-motorcyclists will see the exclusion of motorcyclists from the roadways as a small price to pay for the greater good of reducing motor vehicle crashes by eliminating driver error.

As long as manufacturers self-certify that their vehicles comply with all applicable Federal Motor Vehicle Safety Standards, there is currently no federal law that prevents HAVs from being built or operated on roadways shared with motorcycles. The newly released Federal Automated Vehicles Policy does nothing to change this but merely provides guidance that manufacturers developing self-driving cars should follow. The federal guidance is intentionally flexible so as not to stifle new advances in technology.

The new policy lists examples of behavioral competencies that automated vehicle manufacturers should be assessing, testing and validating. According to the policy, "behavioral competency refers to the ability of an automated vehicle to operate in the traffic conditions that it will regularly encounter, including keeping the vehicle in the lane, obeying traffic laws, following reasonable etiquette, and responding to other vehicles, road users, or commonly encountered hazards." The policy provides examples of behavioral competencies that include specific references to dealing with bicyclists and pedestrians with no mention of motorcycles.

It is my fear that if motorcycles aren't specifically addressed, automated vehicle manufacturers will neglect to consider them. That is why it is imperative that we work not only with the government to make sure we are included in the thought process regarding automated vehicles but with the developers of the technology as well. To that end, Jesper Christensen, general secretary of Sveriges MotorCyklister—our counterpart organization in Sweden—and I sent a joint letter to the chief executive officers of Volvo and Autoliv in Sweden. These two Swedish companies are developing software in both Sweden and the United States for advanced driver assistance systems.

In our letter we asked "for the safety of all roadway users, including motorcyclists, that the algorithms and software be developed and tested with one of the goals being to identify motorcycles and respond appropriately." So far, we have received a positive response from Autoliv and hope to get a similar response from Volvo.

The technology that facilitates self-driving cars is fascinating and if implemented properly could result in incredible improvements in roadway safety. As we have seen with government and ethanol industry efforts to flood the market with motor-fuel with higher concentrations of ethanol without consideration of the impact on millions of motorcyclists, the development and implementation of self-driving technology without adequate consideration of its impact on motorcyclists could prove catastrophic to motorcycling.

Your help is essential. Sign up for AMA Action Alerts today at www.americanmotorcyclist.com. When you get an alert about automated vehicles, take the action called for in the alert to help protect the future of motorcycling.

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