

November 14, 2017

Dear Senator:

The Senate is about to take up S. 1885, the AV START Act, a bill about self-driving cars that would place public safety and consumer acceptance of this new technology at risk. Commonsense and reasonable changes to the bill, strongly supported by our organizations, would improve the bill and help avoid this outcome. Our recommendations for improvements will not hinder, impede, delay or discourage the development and deployment of autonomous technology. Rather, these provisions will enhance consumer confidence, industry accountability and public safety.

We fully recognize and support the potential for driverless cars to be the catalyst for meaningful and lasting reductions in the death and injury toll. However, we cannot allow human errors by drivers to be replaced with human errors by computer programmers which can be mitigated with due care and diligence. The years soon to come - when driverless cars and cars with drivers will be sharing the road - likely will be the most challenging time for safety. The recommendations below are sensible and essential.

**The Number and Scope of the Exemptions to Safety Standards Must Be Reduced and Occupant Protection Standards Must Be Retained:** Currently, this bill would allow each manufacturer to seek exemptions for tens of thousands of vehicles every year to be sold to the public, not just used for testing. This is a major departure from current law, which permits unlimited numbers of exemptions for testing and 2,500 exempted vehicles to be sold to the public. The number of exemptions permitted under the legislation should be reduced in size and scope. Furthermore, exemptions from occupant protection standards must be prohibited. To allow for sufficient data collection and evaluation of exemptions and their impact on safety, the time period before allowing increases in the number of exempt vehicles should be extended to a minimum of 24 months.

**Safety Provisions for Level 2 AVs Should Be Included in the Bill:** The National Transportation Safety Board (NTSB) identified the major safety risks of Level 2 AVs in its investigation of the 2016 fatal crash of a Tesla Model S in Florida. On September 12, the NTSB held a hearing on that crash that laid bare the dangers of untested AV systems and pointed out multiple problems with Tesla's driver-assist system known as "Autopilot." That crash investigation identified deadly risks and deficiencies of Autopilot due to an unsafe design and the lack of adequate consumer information – issues that consumer and safety groups have been raising for months. Because partially automated vehicles will likely comprise the majority of the passenger vehicle AV fleet in the early years of deployment, Level 2 AVs should be included in the bill sections on the Safety Evaluation Report, the cybersecurity plan, and all consumer information provisions.

**Driver Engagement in Level 2 and Level 3 AVs Must Be Addressed:** The NTSB investigation on the Tesla crash also underscored the urgent need for minimum performance requirements to ensure driver engagement in AVs which require operation by a human driver. In Level 2 and Level 3 AVs, the driver must be kept engaged. If there is a safety-critical problem, the driver must understand the situation, take control of the vehicle and take appropriate action.

The NTSB investigation revealed that the Tesla Autopilot system was active for 37 minutes of the 41 minute drive, and of those 37 minutes the system detected the hands on the steering wheel only 7 times for a total of 25 seconds. The NTSB found that these problems are widespread across manufacturers with similar systems. The National Highway Traffic Safety Administration (NHTSA) should be required to establish a performance standard for driver engagement and re-engagement.

**It Is Vital to Establish a Public Consumer Database of AVs Similar to [www.safercar.gov](http://www.safercar.gov):**

The NTSB also validated concerns about lack of sufficient data collection. NHTSA should be required to establish a publicly available database with basic, but essential, data on all AVs. Such a database will give consumers relevant vehicle information on the level of automation, exemptions from safety standards, and the operational design domain, including limitations and capabilities, with which the AV is equipped. This will be important to consumers who purchase a new AV and will be crucial for consumers who purchase used AVs that may be missing an owner's manual. This data will also facilitate evaluation and research of the safety performance of AVs by NHTSA and independent research groups.

**Cybersecurity and Electronics Standards Are Imperative and Fundamental Requirements:**

A critical safety requirement missing from the bill is adequate cybersecurity standards. Especially in light of recent high-profile cyberattacks and the threats posed by the takeover of a vehicle's controls, the bill's requirement for companies simply to develop a cybersecurity plan is insufficient to mitigate cybersecurity risks. Additionally, motor vehicles and motor vehicle equipment are powered and run by highly complex electronic systems and will become even more sophisticated with the mass introduction of automated driving systems. NHTSA should set minimum performance requirements to ensure that the electronics that power and operate safety and automated driving systems are not compromised, similar to what has been done at the Federal Aviation Administration (FAA), and that they are designed to retain data about the performance and failures of those systems. As the cars of today and tomorrow - including AVs - are essentially "computers on wheels," both of these standards are needed.

**NHTSA Needs More Resources:** The development and deployment of AVs will mean even greater responsibilities and challenges for NHTSA, which has a statutory duty to oversee motor vehicle safety. In order to be an effective regulator, the agency must be given additional funding and staff. Today, 94 percent of transportation-related fatalities, and 99 percent of transportation injuries, involve motor vehicles on our streets and highways. Yet, NHTSA receives only approximately one percent of the overall U.S. Department of Transportation budget. NHTSA is responsible for the safety of over 321 million Americans who drive or ride in more than 281 million registered motor vehicles. It is clear that the agency is grossly underfunded and needs more resources as AVs are deployed *en masse*.

A Pew Research Center survey released on October 4 found that 56 percent of U.S. adults polled said they would not ride in a driverless vehicle. Many respondents cited a lack of trust in the technology and safety concerns as reasons to avoid driverless cars. A bill that allows the auto industry to treat humans like test subjects, instead of setting up reasonable safeguards to keep them safe, could easily contribute to and compound consumer hesitation and anxiety.

This experimental technology should not be so dramatically accelerated without proper protections for the public. We urge you to adopt these improvements to S. 1885 when the Senate takes up the bill.

Sincerely,

Jacqueline Gillan, President  
Advocates for Highway and Auto Safety

David Friedman, Director of Cars and  
Product Policy and Analysis  
Consumers Union and  
Former Deputy and Acting Administrator,  
NHTSA

Sally Greenberg, Executive Director  
National Consumers League

Andrew McGuire, Executive Director  
Trauma Foundation

Dominick Stokes, Vice President for  
Legislative Affairs, Federal Law  
Enforcement Officers Association

Joan Claybrook, Chair  
Citizens for Reliable and Safe Highways and,  
Former Administrator, NHTSA

Jack Gillis, Director of Public Affairs  
Consumer Federation of America

Jason Levine, Executive Director  
Center for Auto Safety

Ralf Hotchkiss, Co-Founder  
Whirlwind Wheelchair International

Stephen W. Hargarten, M.D., MPH  
Society for the Advancement of  
Violence and Injury Research