

Professional Perspective

**The Litigation Landscape
for Autonomous Vehicle
Crash Liability,
Part 1: Current Conditions**

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The Litigation Landscape for Autonomous Vehicle Crash Liability, Part 1: Current Conditions

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Assessment of liability for motor vehicle accidents will become more complex and expensive as interaction increases between humans and vehicles with automated driving systems. Driverless vehicles are not approved and available for general consumer use yet, but the evolution toward full autonomy continues; the National Highway Traffic Safety Administration predicts (<https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#issue-road-self-driving>) that vehicles with varying degrees of self-driving capability will inevitably be coming to consumers' garages and the nation's roads. As self-driving technology gains broader acceptance and use, motor vehicle claim handlers and litigators must prepare for a shift in liability theories and analysis.

The State of Self-Driving Vehicle Technology

The Society of Automotive Engineers (SAE) has defined six levels of driver assistance technology advancements, ranging from "No Automation" (zero autonomy) to "Full Automation" (the vehicle is capable of performing all driving functions under all conditions; the driver may have the option to control the vehicle). The current focus of development is level three, "Conditional Automation" (driver is a necessity, but is not required to monitor the environment).

In the "Conditional Automation" scenario:

An Automated Driving System (ADS) on the vehicle can itself perform all aspects of the driving task under some circumstances. In those circumstances, the human driver must be ready to take back control at any time when the ADS requests the human driver to do so. In all other circumstances, the human driver performs the driving task.

General Motors ("GM") has been developing and testing in the United States self-driving technology for affordable consumer vehicles. In 2018, GM became the first manufacturer of a self-driving consumer vehicle to be sued for injuries arising out of a collision allegedly caused by a semi-autonomous Chevrolet Bolt test vehicle. GM has announced plans (reported by Alex Davies in an article in WIRED, <https://www.wired.com/story/gm-cruise-self-driving-car-launch-2019/>) to release and test a vehicle without a steering wheel, pedals or manual controls in 2019.

Tesla, Mercedes-Benz, Nissan, Toyota, Volvo, and other companies have also released vehicles with self-driving features, while Navya, Nuro, Waymo (formerly the Google self-driving car project), Uber and Zoox are testing driverless fleets for public transportation, delivery, ride sharing and taxi service. Ford is developing and testing self-driving vehicles to deploy in fleets initially, such as mobility services accessed through an app. Tesla advertises (<https://www.tesla.com/autopilot>) that all its vehicles "have the hardware needed in the future for full self-driving in almost all circumstances, at a safety level we believe will be at least twice as good as the average human driver." But Tesla also informs consumers: "Please note that Self-Driving functionality is dependent upon extensive software validation and regulatory approval, which may vary widely by jurisdiction."

Given the variety of vehicles on the road and relatively small number with self-driving technology, drivers and passengers cannot expect that vehicles in self-driving mode will interact with other drivers, other vehicles and their environment in the same way that human drivers do. Drivers and passengers must be educated that even with AI, the vehicle will not communicate and react in the same way that they do, even though there may be safety advantages.

At least for the foreseeable future, intended use of a self-driving vehicle would not include the transportation of a minor, a person not qualified for a driver's license under state law or an impaired individual as a lone operator or passenger.

The State of Self-Driving Vehicle Regulation

The federal government has not yet issued regulations that set requirements specific to vehicles with self-driving technology. The National Highway Traffic Safety Administration (NHTSA), however, established a Voluntary Safety Self-Assessment (*Automated Driving Systems 2.0: A Vision for Safety*, Nat'l Highway Traffic Safety Admin., 5-15 (Sept. 2017), https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/13069a-ads2.0_090617_v9a_tag.pdf) for companies developing automated driving systems, which includes twelve safety elements:

- system safety
- operational design domain
- object and event detection and response
- fallback (minimal risk condition)
- validation methods
- human machine interface
- vehicle cybersecurity
- crashworthiness
- post-crash behavior
- data recording
- consumer education and training
- federal, state and local laws

Litigation could arise with regard to any one of these twelve elements.

The Voluntary Self-Assessments of 12 companies are accessible on the NHTSA website and provide insight on the current state of the art. The NHTSA criteria at least set some minimum federal standards to guide manufacturers in their risk assessment and mitigation efforts as they develop automated vehicle systems.

Manufacturers also may turn to guidance through American National Standards Institute, International Organization for Standardization, ASTM International and technology-specific consensus standards from organizations such as the SAE. Manufacturers and their insurance companies also can prepare by studying historical recalls associated with new technology and the attendant claims and litigation.

Consumers must be instructed that the vehicle system will not react as humans do to sounds, pedestrians, objects, or animals, make decisions based on hand signals, flags, signs or flares that may be in use around a construction site, accident scene or stalled vehicle, or understand the meaning when another driver honks or flashes lights to communicate.

Limitations of the technology for use outside of well-traveled city streets and highways, on unpaved roads, in unusual terrain and weather conditions, or in situations that may require the perception and judgment of a human driver are significant issues for regulators and designers alike.