

MICHIGAN DEPARTMENT OF TRANSPORTATION
Public Act 231 of 2013; Section 665(3)
Testing and Operation of Automated Vehicles

Per the terms of Public Act 231 of 2013, the Michigan Department of Transportation is pleased to submit this report on the status and recommended next steps for legislation which permits the testing and operation of automated vehicles on public streets and roadways in Michigan.

Public Act 231 allows for vehicles equipped with automated technology to be driven on public roads if they display a “Manufacturer” license plate. The use and eligibility of the Manufacturer license plate for automated vehicles is detailed in this public act. Since the enacting of Public Act 231, fourteen entities have applied for and received a Manufacturer license plate specifically for the testing of automated vehicle technology. This is in addition to the 32,000 other Manufacturer license plates that were previously issued to automobile manufacturers and tier one suppliers.

Significant developments have occurred nationally in the field of automated vehicle technology. At the time of drafting the language, testing of automated vehicle technology was at the beginning of public knowledge. Since then, significant advances in the technology have occurred, and it is expected that passenger vehicles equipped with automated vehicle technology will soon enter the public market place.

This has also been reflected at the national level. Below is text from the United States Department of Transportation / National Highway Safety Administration’s (DOT/NHTSA) *2016 Update to Preliminary Statement of Policy Concerning Automated Vehicles*.

The rapid development of emerging automation technologies means that partially and fully automated vehicles are nearing the point at which widespread deployment is feasible. Essential to the safe deployment of such vehicles is a rigorous testing regime that provides sufficient data to determine safety performance and help policymakers at all levels make informed decisions about deployment. Industry plays a key role in this process by both conducting such testing and in providing data that establish the safety benefits of automation technologies that exceed the current level of roadway safety. Within six months (anticipated to be by July 2016), NHTSA will propose best-practice guidance to industry on establishing principles of safe operation for fully autonomous vehicles (vehicles at Level 4 on the scale established in NHTSA’s 2013 preliminary policy statement).

DOT/NHTSA will continue to work with the States, with other governmental entities and with industry to help ensure that this testing takes place in a way that protects safety on today’s roads while increasing safety for tomorrow. The agency will work with states to craft and propose model policy guidance that helps policymakers address issues in both the testing and the wider operational deployment of vehicles at advanced stages of automation and offers a nationally consistent approach to autonomous vehicles. For policymakers at all levels, the governing principal should be that technologies with proven, data-supported benefits that would make roads safer should be encouraged. DOT/NHTSA is committing to proposing this model policy within six months (expected to be by July 2016).

MDOT worked with the Michigan Secretary of State (MSOS), and consulted with representatives from the automobile and technology industries to provide recommendations on potential next steps to encourage the continued safe testing and deployment of automated vehicle technology.

It should be noted that MDOT’s primary concern in the development and adoption of any transportation technology is safety; the safety of our transportation system users, and the safety of the public. We

believe that the deployment of automated vehicle technology will have significant beneficial impact to transportation safety in the state; we believe that the development and deployment of this technology must be done in a manner which is safe for all users of our state's transportation system.

Recommended Next Steps

Inform purchaser that vehicle is equipped with automated technology, and that instructions are provided for its use. It is important that the operators of vehicles equipped with automated vehicle technology have the knowledge and ability to engage and use these new technologies and systems. Much like is done for existing advanced automobile technology, such as adaptive cruise control and parking assist systems, the vehicle owner and operator is equipped with the literature on how to use this technology, and is educated on its use at the time of sale.

Permit operation on public roads. We believe this technology will soon be available for public use (a vision shared by the DOT and NHTSA). We would recommend legislation that would permit the operation of automated vehicles and vehicles equipped with automated technology by the public, with conditions if necessary, on public roads and right of way.

Following distances. With the development of automated and connected vehicle technologies, the following distances between two vehicles can be substantially reduced, as the human perception/reaction time could be reduced. We would recommend legislation that can ease the restriction on following distances between vehicles if they are equipped with connected and/or automated technologies that permit close, safe vehicle spacing.

Continue following DOT / NHTSA developments. NHTSA has pledged to provide best-practice guidance to developers and regulator guidance to state policy makes in six months (around mid-July 2016). These developments should be monitored by MDOT and MSOS for applicability to Michigan.

Other Initiatives

Based on the experiences of other states across the country in enacting specific regulations for the testing and operation of automated vehicles (specifically, the states of Nevada and California), there are certain elements that we would recommend are *not* considered in future legislative efforts.

Specific endorsements for operating an automated vehicle. This requires significant administrative burden on the secretary of state or department of motor vehicles for developing, administering, and monitoring a new and separate training and certification program. We believe that through supplying instruction provided by the vehicle and technology manufacturer, similar to how cruise control and advanced technology functions are handled today, the safe operation of the technology can be achieved; therefore we see no need to pursue this in Michigan at this time.

Certifying or defining technology to be included in a vehicle. Simply put, the automobile and technology companies are the "experts" at the details of automated technology. It is not feasible to think that state experts (or experts hired by the state) would have more knowledge of the technology than those that are developing the technology. It is also believed that the types of technology will vary by automobile manufacturer; we would not recommend restrictions on the development of any one entity in favor of another.

Unknowns – Future Tasks

There are certain areas where there is not enough information and data currently available to provide recommendations, and should be pursued for further evaluation. However, we believe that not acting in these following areas at this time would not have an adverse impact on allowing the full operation of automated vehicles on public roads and right of way in Michigan.

Evaluate impacts of the use of electronic devices within a vehicle. Michigan law currently bans the texting and use of electronic equipment in passenger vehicles while driving. It is unknown what the “Driver Interface” will be for vehicles equipped with automated technology. It is also expected that these interfaces will vary by vehicle manufacturer. As these interfaces become available to the public, their implementation in relation to using electronic equipment while driving should be monitored.

Automobile Insurance Company Reactions. The impacts of automated vehicle technology on the automobile insurance industry are unknown. In addition, the insurance industry requirements or incentives for adopting such technology are also unknown. Actions of the insurance industry in relation to the adoption of automated vehicle technology should be continuously monitored to identify any potential impacts to Michigan.

Clarify need for licensed operator. Currently, only operators with a valid driver’s license would be permitted to operate an automated vehicle in Michigan. However, it is expected that some of the true benefit to transportation safety and mobility in the state will be realized when disabled or impaired drivers can use fully automated vehicles. As automated vehicle technology continues to advance, consideration should be given to permitting those with driving restrictions to take advantage of this new transportation technology.