The Wisconsin Responder

WisDOT's TIME Program Quarterly Newsletter

TIME — Traffic Incident Management Enhancement

Mike's Minute

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Hello everyone! Summer has arrived and it looks promising that the impacts that COVID 19 had in 2020 are being mitigated. Across the USA (and in Wisconsin), in-person TIM training classes have taken a huge hit during this time, but we continue to move forward with the use of online training and in-house training programs. We are seeing some light at the end of the tunnel with several agencies considering in-person courses in the fall. We are excited about returning to in-person TIM training and look forward to reaching the National Goal of 45% in 2021.

So, I am sure that most of you have seen the new Dominos Pizza commercial that highlights a self-driving vehicle. They are being used in a Houston suburb. In addition, we have autonomous taxis in California, autonomous cargo vans in Arizona, and Pizza Hut is working with Toyota on a driverless electric delivery vehicle that even has a mobile kitchen in it to cook pizzas en route to your house. We have provided an article that will give you a thumbnail version of WisDOT's approach to Connected and Automated Vehicles and how our first responders will play a valuable role in support of the internal *Law Enforcement and First Responders Services* subcommittee.

Thank you for continuing to serve...stay safe, *Mike*

Wisconsin TIM Training Progress

May 2019
35.7%

May 2020
40.1%

March 2021
42.9%

April 2021
43.2%

May 2021
43.5%

National Goal is 45%

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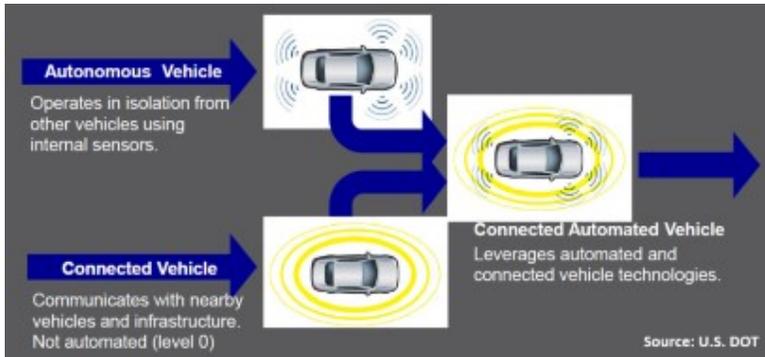
WisDOT's Work With Connected and Automated Vehicles

Connected and Automated Vehicle (CAV) Technology is Here Today

When we hear about CAV technology, we often think of vehicles that can drive themselves without a human driver. While such fully automated vehicles may be available one day, CAV is already changing the way we drive. WisDOT is working to ensure that Wisconsin is ready to best utilize CAV technology and to realize the benefits this new technology has to offer for all of the state's residents.

What are Connected and Automated Vehicles?

Autonomous Vehicle
Operates in isolation from other vehicles using internal sensors.

Connected Vehicle
Communicates with nearby vehicles and infrastructure. Not automated (level 0).

Connected Automated Vehicle
Leverages automated and connected vehicle technologies.

Source: U.S. DOT

While some advanced driver-assistance systems like adaptive cruise control are in widespread use today, there are many other technologies that are inherent in the operation of Connected Vehicles, Automated Vehicles, and Connected and Automated Vehicles.

Connected Vehicles (CVs) can communicate with other CVs, infrastructure, "the cloud," and vulnerable road users such as pedestrians and bicyclists. CVs supply useful data to the driver to help make safer or more informed decisions.

Automated Vehicles (AVs, sometimes referred to as autonomous vehicles), can use cameras and on-board sensors such as radar and Light Detection And Ranging (LiDAR) to operate independent of other vehicles. Aspects of the driving functions, such as steering, braking, etc., can occur without driver input. AVs gain synergies from being "connected" but are not reliant on those connections for operation; when AVs are "connected," they can be considered a Connected and Automated Vehicle (CAV). Different levels of driving automation have been defined by SAE International, as illustrated below.

SAE **J3016**™ LEVELS OF DRIVING AUTOMATION™
Learn more here: sae.org/standards/content/j3016_202104

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	SAE LEVEL 0™	SAE LEVEL 1™	SAE LEVEL 2™	SAE LEVEL 3™	SAE LEVEL 4™	SAE LEVEL 5™
What does the human in the driver's seat have to do?	You _are driving_ whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering			You _are not driving_ when these automated driving features are engaged – even if you are seated in "the driver's seat"		
	You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety			When the feature requests, you must drive	These automated driving features will not require you to take over driving	
	These are driver support features			**These are automated driving features**		
What do these features do?	These features are limited to providing warnings and momentary assistance	These features provide steering OR brake/ acceleration support to the driver	These features provide steering AND brake/ acceleration support to the driver	These features can drive the vehicle under limited conditions and will not operate unless all required conditions are met		This feature can drive the vehicle under all conditions
Example Features	• automatic emergency braking • blind spot warning • lane departure warning	• lane centering OR • adaptive cruise control	• lane centering AND • adaptive cruise control at the same time	• traffic jam chauffeur	• local driverless taxi • pedals/ steering wheel may or may not be installed	• same as level 4, but feature can drive everywhere in all conditions

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WisDOT's Work With Connected and Automated Vehicles
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Opportunities, Challenges, Accomplishments and Plans


CAVs have the potential to improve the quality of life and enhance the mobility and transportation equity of Wisconsin's citizens, especially older adults and people with disabilities. Freight movement may be facilitated through techniques such as truck platooning. Emergency response vehicles may improve response and coordination if connected to an Intelligent Transportation System (ITS). Most importantly, CAVs have the potential to improve safety by reducing crashes caused by human error and distracted or impaired driving.

CAVs also bring challenges. Questions about the safety, security, and privacy of these vehicles are being discussed around the world, including here in Wisconsin. The federal government is developing a framework that will define, assess, and manage the safety of CAV technology while still ensuring the flexibility needed to enable further innovation.

WisDOT has created an internal working group and an external Advisory Committee to determine how to best prepare our state for CAVs. Our Bureau of Traffic Operations is testing infrastructure technologies, and we are participating in multiple CAV research initiatives. We are working with other states to harmonize policies in order to make traveling across state borders in a CAV seamless, and within Wisconsin, we've provided support to local governments involved in Smart City-type initiatives.

Through a strategic planning effort, CAV-related objective areas WisDOT and its partners will be concentrating on include:

- Law Enforcement and First Responder Services
- Statutes, Policies, and Regulations
- Communications and Outreach
- Partnerships
- Organizational Alignment, Coordination and Readiness
- Transportation System Infrastructure and Operations Readiness
- Research, Testing, and Pilot Projects
- Data Governance and Security
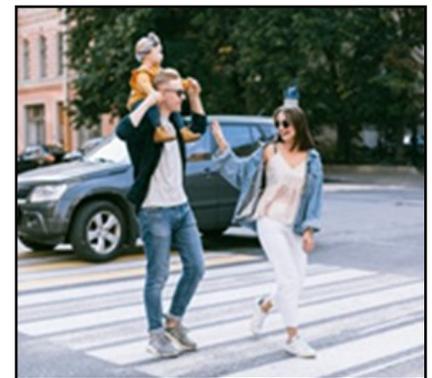
Law Enforcement and First Responder Services

WisDOT's internal *Law Enforcement and First Responders Services* subcommittee is dedicated to reviewing how CAVs may impact the law enforcement and first responders' community in Wisconsin. Our current project is to identify differences and considerations for law enforcement and first responders at the scene of a CAV crash. We may be reaching out in the future with questions that will assist us in bringing the best and most relevant CAV information to you.

Moving forward, we will use these responses to inform training opportunities for Wisconsin's law enforcement and first responder community and future articles in the TIME Newsletter. Be on the lookout for future CAV articles!

Contact wiscav@dot.wi.gov for more information.

Regional TIME Meetings

Last week we completed the last of the spring regional TIME meetings and the ETO/TIME team wanted to express our appreciation for all the assistance that we received. While we may all wish for the day that in-person meetings resume, we continue to be effective in using the virtual platform for these meetings. Our planning for the fall regional TIME meetings starts today. We will be looking at building on our successes and making needed corrections to those areas that require improvement. One of the areas where we would like to see some improvement is greater participation by local police and fire departments.

So here is a snapshot of the spring 2021 regional TIME meetings…

- 23 regional TIME meeting prep sessions (Training Topic Determination, Agenda, & Final Practice)
- 9 regional TIME meetings over 19 workdays
- 307 participants
- 32 different presenters
- 10 Incident (motor vehicle crash) reviews
- 7 TIM training topics: Connected & Automated Vehicles, Bridge Hits, Crash Scene Reconstruction-Intro to ECM, Mega-Loads, Urban vs. Rural TIM, Medical Flight Landing Zones, and Unified Command

As our planning begins for fall 2021, please feel free to send the ETO/TIME team any recommendations, comments, training ideas, etc. On behalf of the ETO/TIME team…thank you!

Try This App for First Responders

Recently, during a "Talking TIM" webinar the Federal Railroad Administration (FRA) presented on Traffic Incident Management - FRA role in Emergency Management for Rail Accidents. Part of their presentation focused on an "app" called Rail Crossing Locator that can be used by first responders. We downloaded the app and believe it can be a great tool for first responders. The ETO/TIME team is sharing this information with you, as a possible resource that can be used in the field.

The Crossing Locator was developed to provide users with access to the highway-rail grade crossing database and map features from a mobile device. The tool allows users to locate crossings by USDOT Crossing ID, address or geo-location; access inventory records submitted by states and railroads; and view accident history.

Users can also select from multiple base map features and identify railroad crossings by special characteristics. Users may also use the app to find and call the Emergency Notification Number (ENS) in case of an emergency or a safety concern about a specific highway-rail grade crossing. The information accessed in the mobile application is derived from the Safety Data website using information submitted by States and Railroads.
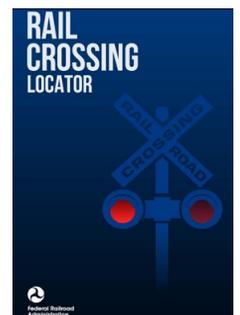
The Crossing Locator App is currently available for your Apple and Android Devices.

iPhones and iPads
Download it from The Apple App Store.

Android Phones and Tablets
Download it from The Google Play Store.

Special Events and Conferences

June 2021
Wisconsin County Highway Association (6/7-6/9)
WI Towing Association (6/18-6/19)
Wisconsin State Fire Chiefs Association (6/25-6/26)

August 2021
Wisconsin Chiefs of Police (8/1-8/3)
GCHS - Virtual (8/17-8/19)

September 2021
Mutual Aid Box Alarm System (9/24-9/25)

October 2021
Wisconsin Towns Association (10/10-10/12)
National Move Over Day (10/16)

November 2021
National Traffic Incident Response Awareness Week (11/7-11/13)

February 2022
Wisconsin Chiefs of Police (2/6-2/9)
Wisconsin Sheriff's/Deputy Sheriff's Association (2/6-2/9)

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