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### TIM News

A new TxDOT Highway Emergency Response Operator (HERO) program is scheduled to launch on I-20 in the Midland/Odessa region beginning in June 2025. This will be the fourth program in the state along with El Paso, San Antonio, and Austin.

**National Work Zone Awareness Week.**  
**April 21-25, 2025**

This year's theme is "Respect the Zone So We All Get Home." For more information [CLICK HERE](#) to download resources.

For newsletter comments, contact: [TIM@txdot.gov](mailto:TIM@txdot.gov).



## How do First Responders Handle Traffic Incidents with Driverless Vehicles?

By Jim Comfort, AECOM

**E**lectric vehicles are everywhere. Almost every major car manufacturer produces electric cars, and even commercial vehicles (CVs), like the eCascadia by Freightliner, are on the roadways. First responder vehicles are also going electric! Renowned fire apparatus manufacturers Rosenbauer America and Pierce Manufacturing created all-electric fire trucks that have been successfully deployed for fire operations in California.

What about autonomous vehicles (AVs)? Many people do not understand that the car they drive (manufactured after 2015) have some type of autonomous driving feature, such as lane or braking assist, or hands-free driving<sup>1</sup>. While fully autonomous vehicles are still years away, vehicle autonomy continues to move forward with some now on the streets without human drivers.

To put this in context, **first responders must be trained on driverless autonomous vehicles and how to deal with them at traffic incident scenes.**



Source: Waymo.com

For some background on AVs, in the early 1980s, the Defense Advanced Research Projects Agency (DARPA) enlisted several companies to research and develop AV technology to create unmanned logistics convoys in war zones<sup>1</sup>. In 2004, they created the DARPA Grand Challenge, a series of competitions in which several universities competed for leadership in the AV field. The series of competitions proved that AV technology could work. This spurred new technology startup companies, and the major automakers began to develop their own AV programs.

### What does it mean to be autonomous?

There are five levels of vehicle autonomy (six if you add level zero, which is a fully driver-controlled vehicle). Levels 1-3 require a driver to be in the driver's seat and pay attention as if they were driving the vehicle. Levels 4 does not require a driver in the vehicle. It is entirely automated<sup>2</sup>.

The earliest year autonomous driving features were available for purchase was 2015, when Tesla introduced its Autopilot system in the Model S3 which included lane centering, adaptive cruise control, and self-parking, marking a significant step towards fully autonomous driving<sup>3</sup>. However, the Autopilot moniker was deceiving. Model S owners assumed their vehicles were completely automated (Level 4), and drivers would read, eat, or sleep as the car was traveling down the roadway. In reality, they had no more automation than the typical internal combustion engine (ICE) vehicle with lane and braking assist and cruise control!

In March 2025, Uber and Waymo, a subsidiary of Google's Alphabet, began operating a driverless taxi fleet that can carry up to four people and covers thirty-seven square miles in the City of Austin. The service, already running in several other cities, including Phoenix, Arizona, has received positive feedback after operations began in 2020.

## What Does This Mean for First Responders?

First responders' first concern is safety. How safe are autonomous, driverless vehicles? Currently, level 4 AV taxis are mostly not driven on limited access highways with speed limits of 45 MPH and above<sup>4</sup>. They are also limited to well-mapped areas as the information must be pre-installed into the vehicles' operating parameters. AV technology has not yet overcome the immense hurdle of driving anywhere (without pre-mapped parameters) and dealing with the myriad of everyday traffic interactions common to motorists. However, while motorist reactions vary, the AV will always adhere strictly to local traffic laws.

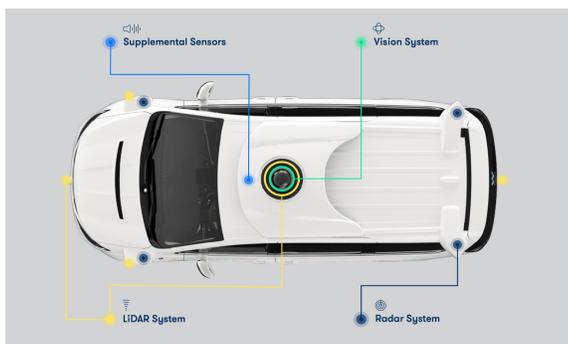
When an AV encounters a traffic incident (or a TxDOT established work zone) that blocks its mapped course, it will stop until the path has been cleared or the vehicle can safely move around the obstacle.

According to company statistics, in the 25 million miles logged by Waymo AVs, there were 81% fewer airbag deployment crashes, 72% fewer injury-causing crashes, and 57% fewer police-reported crashes. In a February 2025 presentation for the Texas Statewide Traffic Incident Management Team held in Austin, Waymo First Responder Ambassador Peter Teliha discussed the driverless fleet and training program underway for first responders. The company offers a training course to teach responders how to deal with AVs involved in traffic incidents.



Source: Robert Murphy, 2022 ITS World Congress Emergency Response Day, Los Angeles CA

The Waymo First Responder Autonomous Vehicle course focuses on typical scenarios involving AVs encountered by first responders. It begins by defining autonomous driving, explaining how the vehicle operates, and the current levels of vehicle autonomy. Responders are then introduced to the vehicle's sensor suite, the heart of the AV. A combination of LIDAR, radar, and camera systems, each with a unique role in the vehicle's operation, are joined to give the AV a 360-degree view of its surroundings. Training videos include a driverless AV obeying directions from an officer directing traffic at an intersection where traffic signals were out. The video demonstrates the AV's ability to recognize and follow hand gestures from the officer without human intervention ([CLICK HERE](#) to see the short video).



Source: SlashGear.com

Perhaps the most essential part of the training involves first responder-AV safe interactions. This portion of the course teaches responders how to:

- Recognize potential hazards and interact with the AV at incident scenes.
- Locate the QR code on the driver-side window for law enforcement to contact the dispatch center.
- Activate the in-vehicle "Rider Support" inside the car by pressing the "DISP" button in the center console.

The Rider Support dispatcher will instruct the responder on how to disable the vehicle and answer any questions. Waymo has a dedicated maintenance and tow service, so they will never be towed by any other service but through Waymo.

The final step is to educate the responders on the available resources for AV safety and incident interaction, including a dedicated first responder website and direct phone number to the local Waymo First Responder Ambassador.

The class has received independent validation from TÜV SÜD, a global safety testing and certification company. It confirms the program meets the SAE Automated Vehicle Safety Consortium (AVSC)-I-01-2024 guidelines for emergency response protocols<sup>5</sup> ([CLICK HERE](#) to see the guideline document).



Source: Waymo.com

Autonomous vehicle technology is constantly under review and revision. Manufacturers state that safety is always the primary concern for customers and first responder agencies. Like electric vehicles, autonomous vehicles are the future of transportation for both personal and commercial ventures. As first responders, we are responsible for the safety of the motoring public, and it is imperative to understand the technology and prepare for that inevitable future. Accepting and understanding these evolving technologies is the key to safe, quick clearance of AV traffic incidents.

For more information on the Waymo First Responder Training, [CLICK HERE](#)

***(Note: TxDOT does not endorse or promote any company or service mentioned in this article. The companies mentioned are for information purposes only.)***

<sup>1</sup> Mobileye, (2023). "A Brief History of Autonomous Vehicles-From Renaissance to Reality." Available at: <https://www.mobileye.com/blog/history-autonomous-vehicles-renaissance-to-reality/>

<sup>2</sup> Gordon, Rachel (2020). "Explained: Levels of Autonomy in Self-Driving Cars." Available at: <https://www.csail.mit.edu/news/explained-levels-autonomy-self-driving-cars>

<sup>3</sup> Lowensohn, Josh (2014). "This is Tesla's D: an all-wheel-drive Model S with eyes on the Road". The Verge. Vox Media

<sup>4</sup> Park, Ji Eun, et. al. (2024) "The Impact of Automated Vehicles on Traffic Flow and Road Capacity on Urban Road Networks." Journal of Advanced Transportation. <https://doi.org/10.1155/2021/8404951>

<sup>5</sup>Self-Drive News (2024). "Waymo's First Responder Program Validated." Available at <https://selfdrivenews.com/waymos-first-responder-program-validated>

# Texas TIM Represented at FHWA's "Talking TIM" National Webinar

By Christopher Gray, Statewide TIM Coordinator, TxDOT



The first quarter of 2025 has already come to an end. If you tuned into the most recent edition of the Talking TIM Webinar, then you got to hear yours truly talk about Texas' TIM efforts and outreach. It was an honor to be able to showcase the resources and outreach efforts of our TIM Program. Sean and I take great pride in keeping Texas number one in the nation for TIM training progress. If you didn't get to tune in, below is a list of topics discussed during the webinar:

- A description of the TIM courses offered through the TxDOT statewide TIM office
- A summary of the Texas TIM outreach efforts
- The TIM brochure and Texas TIM Newsletter
- The Bi-Monthly Texas TIM Webinar
- The TxDOT TIM webpage.

To hear the March 2025 NOCoE Talking TIM Webinar featuring Mr. Gray, [CLICK HERE](#)

Most of you are already aware of the courses that we offer, but what some of you may not be aware of is that if you access the TIM page through the TxDOT website there are several new features. You can now request training, subscribe to the newsletter, and subscribe to the latest TIM Bi-monthly Webinar.

We have always tried and will continue to make efforts to attend the regional TIM Team meetings. We regularly travel to the TxDOT Districts to attend their Traffic Safety Coalition meetings and present on applicable topics. We have made an annual appearance at the Texas Police Chiefs Conference in Galveston to attend to a vendor's booth, allowing us to get the TIM message out to hundreds of police executives. If you have an upcoming Coalition meeting or public event, please reach out to us and we will support your efforts by whatever means we can.

Moving forward, if any of you have a topic that you think would make an excellent addition to the TIM Newsletter, please feel free to reach out to us about seeing your article added to the newsletter. We look forward to hearing from each and every one of you as we move forward. As you know, Traffic Incident Management is most effective when it is deployed as a team effort. Let's be a team and make sure that **Everybody Goes Home**.



## Do You Have a Topic or Article to Contribute to the Newsletter?

If you have a topic you would like to see covered, an article on a TIM topic that would be helpful to other programs, or if you would like to recognize someone for their outstanding work in the TIM field, then we want to hear from you!

Submit your article in an MS Word document and the statewide team will consider placing your article in one of the upcoming newsletters. Please keep the article under 500 words, include any photos (with photo credits) and the reason why you feel the topic is important to the TIM community, Send your article and contact information to: [TIM@txdot.gov](mailto:TIM@txdot.gov)

## Texas TIM Regional Meetings

Statewide TIM Meeting (Location Varies) .....	Bi-Monthly - April 23
Austin Incident Management (AIM) Team .....	Bi-Monthly
Childress TIM Team .....	Bi-Monthly
El Paso Metro TIM Team .....	Quarterly
Big Bend TIM Team (Rural El Paso District) .....	Quarterly
Houston TranStar TIM Team .....	Second Thursday of the Month
Northeast San Antonio (NESA) TIM Team .....	Quarterly - Fourth Tuesday Beginning in January
San Antonio TIM Team.....	Second Tuesday of the Month

# New Variable Speed Limit Signs on US 54 in El Paso to Help Reduce Traffic Incidents

By Jim Comfort, AECOM

**A**dverse road weather conditions are present during nearly 14 percent of fatal crashes in the United States, representing almost 72,000 total fatality crashes from 2013 to 2022<sup>1</sup>. Five percent of the motor vehicle crashes occurred during low visibility conditions. Last year, 1,303 people were killed in speed-related traffic crashes in Texas.

In 2023, the number of speed-related crashes in the city of El Paso was 3,855, resulting in thirty (30) fatalities. "There's really no particular region or climate where low-visibility events don't occur on roadways, and they often happen suddenly," said David Johnson, the FHWA's Managing Disruptions to Operations Team Leader. "They can be very small, localized events, sometimes covering less than a mile, but the sudden loss of visibility can have severe effects on drivers<sup>1</sup>."

On October 16th, 2024, the El Paso TxDOT District began a Variable Speed Limit (VSL) Program to address congestion, weather, construction, and low visibility conditions. The VSL zone is on US 54 SB (main lanes only) from Cassidy Road to Interstate 10.



Lane Assignment Confirmation (Photo Courtesy of TxDOT)



VSL Implementation (Photo Courtesy of TxDOT)

"Speed is one of the top contributing factors in Texas," said Eduardo Perales, the TxDOT El Paso District Director for Transportation Operations. "This provides an additional tool to alert drivers of congestion or undesirable conditions impacting the road ahead and to reduce their speed. One in three of all traffic fatalities in Texas involve speed; though behavioral, we can try and deter speeding<sup>2</sup>. Mr. Perales added that the US 54 portion was used due to the congestion from the international crossing and the winter weather conditions on the number of elevated interchanges in that area.

Under section 543.353 of the Texas Transportation Code, the speed limit can only be reduced to a maximum of ten (10) MPH below the posted limit. The fully automated system automatically uses data to reduce the speed limit when it detects congestion (due to a traffic incident). A trained operator can also manually reduce the speed limit.

"Speaking for El Paso PD, we find this Variable Speed Limit Signs program extremely beneficial," said Lieutenant Jaime Velasquez of the El Paso Police Department, Traffic Division. "If congestion for any reason develops ahead resulting from a crash, weather incident, rush hour build-up, or other emergency incident, the VSL signs activate and alert approaching traffic to slow down to at least 50mph. That can result in preventing crashes and allowing motorists to choose alternate routes. Our officers have found this helpful the few times this particular VSL location was activated. We feel it would benefit to implement more of these in both directions of I-10 and Loop 375."

TxDOT continues to innovate for the safety of the motoring public and first responders. TxDOT is committed to the safety of everyone who uses the roadways. An innovative program like this is another step towards its goal of zero traffic deaths in the #EndTheStreakTX program and to follow the statewide TIM slogan that Everybody Goes Home!

<sup>1</sup>FHWA Innovator Newsletter, "Technology Applications for reducing Low-Visibility Crashes." p. 6-7 January/February 2025 |V18|Issue 104

<sup>2</sup> TxDOT News Release, El Paso District, October 11, 2024. "El Paso Implements First Variable Speed Limit in Texas."

# Mexico Firefighters Join El Paso TIM Training While New Presidio Team is Formed

**O**n March 20, Mr. Hernandez and Mr. Jim Comfort traveled to Presidio, TX, 254 miles southwest of El Paso to teach a morning (34 attendees) and an evening session (16 attendees) of the 4-hour TIM for First Responders and Electric Vehicle Emergency courses to the first responders. In addition to the county first responders, City of Presidio responders and officials, the classes included volunteer firefighters from Ojinaga, Mexico, the city directly across the border from Presidio. Municipal Judge Viviana Catano was the person responsible for putting the community training together. She told Mr. Hernandez that the firefighters from Ojinaga come across the border to render assistance during fires and floods, but most importantly, during major traffic incidents. She invited Ojinaga VFD representatives to the training to better work with the responders in Presidio. The Mexican firefighters said they enjoyed the class and learned a great deal about traffic incident response. They said they would like to work with Mr. Hernandez and Judge Catano to develop the TIM and Electric Vehicle Training in Spanish to present to their fellow volunteers at the department. Mr. Hernandez said the El Paso TIM Team would be glad to help with training in the future.

After the morning training session concluded, the Presidio first responders decided to start the Presidio TIM Team to address the unique problems with TIM directly at the border. Their first TIM Team Meeting is scheduled for July 2025. Congratulations to the El Paso District and Mr. Hernandez for the great work starting and maintaining the teams.



Al Hernandez and Judge Viviana Catana



Al Hernandez (left), members of the Ojinaga FD, AECOM  
TIM Consultant Jim Comfort (right)



Top Photo: Morning Training. Bottom: Evening Session

## FACES OF THE FALLEN – REMEMBERING OUR COMRADES

**T**exas had no first responder TIM-related deaths in the first quarter of 2025. Our hearts and prayers go out to the family, friends, and colleagues of the eight fallen first responders in Texas and the forty-six throughout the United States in 2024.

Thank you for your selfless service. May you rest in eternal peace. Rest easy, we have the watch...





TxDOT TIM Website: [www.txdot.gov/safety/traffic-incident-management.html](http://www.txdot.gov/safety/traffic-incident-management.html)

TIM Program Email: [TIM@txdot.gov](mailto:TIM@txdot.gov)