NATIONAL TRAFFIC INCIDENT MANAGEMENT (TIM) RESPONDER TRAINING PROGRAM



TRAFFIC INCIDENT MANAGEMENT FOR THE RURAL ENVIRONMENT

Challenges of Traffic Incident Management in Rural Areas

On rural roadways, traffic incident responders face several unique roadway characteristics and conditions that create safety challenges for both responders and the traveling public. These safety challenges can slow the Traffic Incident Management (TIM) response timeline (detection, notification, and arrival stages), disrupt responder communications, and require additional personnel for tasks like manual traffic control, all while stretching often limited responder resources.

Common rural roadway characteristics that can create challenges for responders include:

- Two-Lane Roadways
- Roadways narrower than High-Speed, Limited Access Highways
- Minimal or No Shoulders
- Limited Roadway Safety Infrastructure
- Dark Roads
- High Speeds
- Varying Terrain/Grades and Roadway Topography
- Severe Weather
- Limited Sight Distances
- Unpaved/Gravel Roads
- Unfamiliar Road Users (Tourists)
- Livestock and Agricultural Equipment
- Unfamiliar Road Vehicles (Horse and Buggies, Agricultural Vehicles, Recreational Vehicles)

In addition to the rural roadway characteristics, response to rural roadway incidents and implementation of TIM practices can be further complicated by the following rural responder challenges:

- Long response distances
- Limited Responder Funding/Resources
- Limits/Gaps in Communication Infrastructure
- Lack of Intelligent Transportation Systems (ITS)
- Few Alternate Routes
- Responders Arriving on Scene in Privately Owned Vehicles (POVs)
- Vehicle Weight Restrictions

Even though only 19 percent of the U.S. population lives in rural areas, accounting for about 30 percent of miles traveled, the crashes in rural areas account for 43 percent of traffic fatalities and 1.7 times the fatality rate per 100 million Vehicle Miles Travelled than in urban areas.

[1,2]



Source: Oregon Department of Transportation.



Source: Jaime Sullivan, Western Transportation Institute.

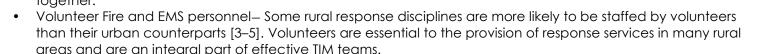
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Advantages of Traffic Incident Management in Rural Areas

While rural TIM responders face several challenges in rural areas, there are several benefits and opportunities that rural areas provide that can be advantageous to TIM response. These include:

- Low Vehicle Volumes–Rural areas tend to have lower vehicle volumes than urban areas. This can be attributed, in part, to low population and little interaction with noninvolved vehicles at an incident scene, which may result in few secondary crashes.
- Close Relationships—Typically, responders in rural areas have long-established relationships. Because the communities are small, the responders are often connected personally and through their TIM responsibilities. These existing relationships can help to prevent conflict and improve communications.
- Enhanced Coordination-Often, responders in rural areas work with the same people all the time. This familiarity can lead to ease of understanding all aspects of TIM (e.g., use of mutual aid agreements and engaging neighboring communities' responders). Additionally, TIM is often viewed as a collective responsibility. Typically, all responders in rural areas are inclined to participate, they have a thorough understanding of the other disciplines' responsibilities, and they work





Source: Jaime Sullivan, Western Transportation Institute.



Source: Loveland-Symmes Fire Department.

Learn More

To learn more about current and past approaches for rural TIM, go to https://ops.fhwa.dot.gov/tim/.

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