

TRAFFIC SAFETY INNOVATIONS 2016



TRAFFIC INCIDENT MANAGEMENT

TENNESSEE HIGHWAY PATROL



Practice Makes Perfect

The Tennessee Highway Patrol's new traffic incident management facility is saving time — and lives.

In 2015 alone, Americans spent 8 billion hours stuck in traffic, according to transportation analytics firm INRIX.¹ Tennesseans were certainly among them. A separate analysis by TomTom International ranked the state's largest cities, Nashville, Memphis, and Knoxville, as the country's 19th, 41st, and 71st most congested cities, respectively.² Some of that traffic can be blamed on the sheer volume of cars on the road at any given time of day. Much of it, however, is the result of collisions, stalled and overheated vehicles, and similar incidents that slow and obstruct the flow of traffic, especially on highways. To reduce the impact of such incidents, the Tennessee Highway Patrol (THP) unveiled a new traffic incident management system (TIMS) training facility in 2014, the success of which earned the agency the Traffic Incident Management (TIM) Special Award in the 2016 National Law Enforcement Challenge (NLEC).

Problem Identification

In Tennessee and elsewhere, even a minor traffic incident can have a major impact. For every one minute that a lane is blocked on a major highway, for instance, there is a four-mile traffic delay, according to the THP. There will also be an average of three injury crashes in the United States during that same

Agency Size: 840 Sworn Troopers

Location: Tennessee

Community Size: 42,181 Square Miles

Community Population: 6.54 Million

minute. Up to nine first responders may arrive at each incident; this means that up to 27 responders arrive at a new incident every minute, 1,620 responders work at traffic incidents every hour, and up to 38,880 responders work at traffic incidents every day. The result: miles upon miles of congestion, and headaches to match.

It is not just time that is lost to traffic delays, however; lives are lost as well. In fact, cars passing a traffic incident strike and kill approximately five firefighters every year, one law enforcement officer every month, and one tow operator every week, according to the THP. Motorists are also at risk; every one minute a lane is closed increases the likelihood of a secondary collision by 2.8 percent, and secondary collisions, which constitute approximately 20 percent of all incidents, are often more severe than the primary ones.

Faced with these sobering statistics, the THP decided it needed to do more to not only prevent traffic incidents from happening, but also reduce the



impact of incident management on responders and motorists.

“When lanes are blocked, it increases the likelihood of more problems,” says Sergeant Kyrstal Thaxter. “Our goal is to get those lanes cleared as quickly and as safely as possible.”

Planning

For the THP, improving TIM in Tennessee began with strengthening its policies and procedures. To that end, the agency revised its Towing Service Standards Manual, Traffic Crash Investigation Manual, and Standard Operating Procedures for Dispatches Manual in order to reflect its commitment to TIM training. Each of those stakeholder groups, including tow operators, crash site investigators, and dispatchers, received updated guidance on TIM requirements and protocols.

The most significant step the THP took to improve TIM was building its new TIMS training facility, the goal of which is to provide enhanced training to traffic incident responders, including fire departments, emergency medical services (EMS), tow and recovery companies and drivers, Tennessee Department of Transportation (TDOT) personnel, and other law enforcement agencies so they are better equipped to do their jobs safely and efficiently.

The brainchild of THP Colonel Tracy Trott, the \$912,025 facility, which is the first TIMS track in the nation, was funded by a Highway Safety Improvement Project federal grant that covered 90 percent of the cost.



The Tennessee Highway Patrol was presented with several awards at the Highway Safety Awards Breakfast in San Diego, California: First Place, State Police/Highway Patrol 501-1,500 Sworn; the Technology Special Award; and the Traffic Incident Management Special Award.

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It opened in 2014 and features a section of interstate-like roadway with two to six lanes, guardrails, a two-way interchange, and cable and steel barrier rail, as well as a section of two-lane highway and a full four-way intersection. Together, these features provide a safe, effective, and efficient environment in which emergency response entities can learn and practice their craft.

“Basically, this TIMS track allows us to simulate actual traffic movement,” Thaxter explains. “It gives us a safe environment where we are able to teach and recreate incidents we’ve seen on our roadways, and figure out how to manage them better.”

Of course, the most effective aspect of the TIMS track is the inter-agency, multi-disciplinary training that takes place there, which encompasses topics such as scene safety, responder safety, incident notification and response, arrival at the scene, initial size-up of the scene, command responsibility, traffic management, quick clearance, and situational awareness. During the training, participants engage in classroom learning, which is followed by hands-on exercises on the TIMS track. The result, according to Thaxter, is increased collaboration, partnership, and communication among first responders representing different agencies and disciplines, which in turn results in safer and more effective incident management on Tennessee highways.

The TIMS track is not the only tool promoting collaboration among first responders. In 2015, the TDOT and THP opened a new co-location center from which their respective dispatchers can work

side-by-side to coordinate incident response.

“When something happens on an interstate, we no longer experience lag time while information gets passed from one agency to the other,” Thaxter says. “Everybody is getting the same information at the same time and literally working together, which helps us clear lanes faster.

Outcomes

In 2015 alone, the THP trained 4,643 responders from law enforcement, fire and EMS, transportation, and towing and recovery at no cost to responder agencies. The fruits of that training have been obvious to motorists and responders alike, according to Thaxter.

“We’ve reduced the number of secondary crashes due to a traffic incident, we’ve reduced the length of time that lanes are closed, and we’ve been able to successfully redirect traffic so nobody is sitting idle for a really long time in our state,” she concludes. “That, to us, is a good thing.”♦

¹ “INRIX 2015 Traffic Scorecard Sets Benchmark for U.S. Cities as Federal Government Accelerates Smart City Spending,” INRIX, March 15, 2016, <http://inrix.com/press/scorecard-us/> (accessed December 22, 2016).

² “Measuring congestion worldwide,” TomTom, https://www.tomtom.com/en_us/trafficindex/list (accessed December 22, 2016).

LESSONS LEARNED

- ▶ **LEADERS LEAD THE WAY:** Traffic incident management requires a culture change, and culture change is most effective when it’s driven from the top.
- ▶ **COLLABORATION IS CRUCIAL:** Collaboration across jurisdictions and disciplines is a prerequisite for successful traffic incident management.
- ▶ **TRAINING WORKS:** Traffic incident management is science, not art; officers and deputies who learn proper tools, tactics, and techniques are best equipped to drive results.

The National Law Enforcement Challenge is a traffic safety recognition program supported by a cooperative agreement between the International Association of Chiefs of Police and the National Highway Traffic Safety Administration. It is held in partnership with the National Sheriffs’ Association, the Governors Highway Safety Association, and the American Association of Motor Vehicle Administrators.

