

# Law Enforcement Officer Vehicle Struck-by Investigation

Division of Safety Research

1095 Willowdale Road

Morgantown, WV 26505

304.285.5916

**LEO 2015-01**  
**July 10, 2017**

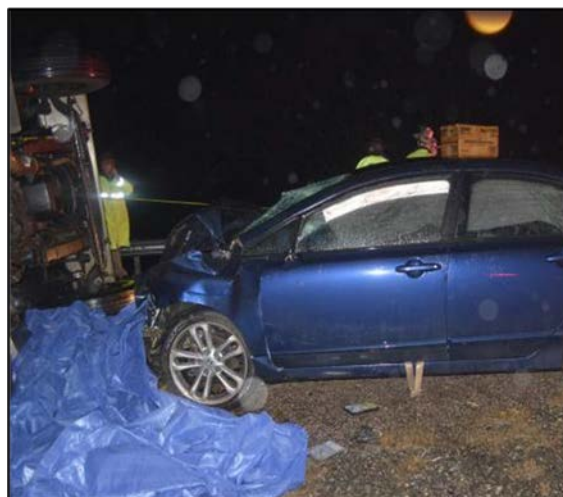
## Trooper Struck By Vehicle While Investigating Crash on Interstate Highway—Oklahoma

*Revised August 4, 2017 to update Federal Highway Administration references and discussion text for recommendation # 6.*

### EXECUTIVE SUMMARY

On January 31, 2015, a 30-year-old Oklahoma Highway Patrol (OHP) trooper was fatally injured when he was struck by a passing motorist. The trooper had responded to a crash involving a tanker truck and was at the scene when the incident occurred. The tanker truck was overturned, blocking the left westbound lane of the interstate and extending into the median. One additional OHP trooper and two officers from the local county sheriff's office also responded to the crash.

The two OHP troopers were standing in a westbound lane upstream of the lane closure in an area that was partially blocked to traffic, with their backs toward oncoming traffic, assessing the scene. At that time, a motorist driving in the westbound lane partially left the roadway, went around a patrol car, and struck both troopers. One OHP trooper died on impact; the other OHP trooper was critically injured and transported to a Level 1 trauma center.



**Crash scene.**  
*(Photo courtesy of Oklahoma Highway Patrol.)*

### CONTRIBUTING FACTORS

- Distracted motorist
- Visibility/Weather—dark, raining, wet roadway
- Law enforcement officers (LEO) standing in partially blocked lane of traffic, upstream of the lane closure
- LEOs positioned with back to the direction of oncoming traffic
- Positioning of patrol cars—one before, one beyond
- Incident occurred during scene size-up
- Roaming civilians distracting LEOs
- 911 communication system

## KEY RECOMMENDATIONS

- State, county and municipal authorities should consider promoting public awareness campaigns for distracted driving laws and the risks law enforcement officers face while responding to highway/roadway incidents.
- State, county, and municipal law enforcement agencies should consider developing a standard operating procedure (SOP) for establishing safe work areas for emergency responders at highway/roadway incidents.
- State, county, and municipal law enforcement agencies should consider maximizing the use of patrol units and other responding emergency vehicles in the design of the temporary traffic control area as they arrive (i.e., deploying the vehicles).
- State, county, and municipal law enforcement agencies should consider developing a standard operating procedure (SOP) that includes guidance on how to properly establish a temporary traffic control plan, including advance warning and transition areas for highway/roadway emergency incidents.
- State, county, and municipal law enforcement agencies should consider developing and implementing a standard operating procedure (SOP) for response and vehicle/resource deployment protocols for highway/roadway incidents involving hazardous materials.
- State, county, and municipal law enforcement agencies should ensure all officers wear suitable high-visibility, retro-reflective vests when operating at highway/roadway incidents.

### NIOSH Law Enforcement Officer Investigations

The National Institute for Occupational Safety and Health (NIOSH), an institute within the Centers for Disease Control and Prevention (CDC), is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. Through an interagency agreement, the National Institute of Justice funded a NIOSH pilot program to investigate line-of-duty deaths of law enforcement officers resulting from vehicle crashes and being struck by vehicles while responding to roadside emergencies and making traffic stops. These NIOSH investigations are intended to reduce or prevent occupational deaths and are completely separate from the rulemaking, enforcement and inspection activities of any other federal or state agency. NIOSH does not enforce compliance with State or Federal occupational safety and health standards and does not determine fault or assign blame. Participation of law enforcement agencies and individuals in NIOSH investigations is voluntary. Under its program, NIOSH investigators interview persons with knowledge of the incident who agree to be interviewed and review available records to develop a description of the conditions and circumstances leading to the death(s). Interviewees are not asked to sign sworn statements and interviews are not recorded. The agency's reports do not name the deceased officer, the law enforcement agency or those interviewed. The NIOSH report's summary of the conditions and circumstances surrounding the fatality is intended to provide context to the agency's recommendations and is not intended to be definitive for purposes of determining any claim or benefit. The NIOSH report is not intended as a legal statement of facts. This summary, as well as the conclusions and recommendations made by NIOSH, should not be used for the purpose of litigation or the adjudication of any claim.

For further information, visit the program website at [www.cdc.gov/niosh/topics/leo/default.html](http://www.cdc.gov/niosh/topics/leo/default.html) or call toll free 1-800-CDC-INFO (1-800-4636).

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## INTRODUCTION

On January 31, 2015, a trooper from the Oklahoma Highway Patrol (OHP) was struck and killed by a distracted motorist while investigating the scene of an overturned tanker truck. In October 2015, NIOSH learned of this incident and enlisted the cooperation of the OHP. In December 2015, an investigation team consisting of staff from the NIOSH Division of Safety Research and the National Institute of Justice (NIJ) traveled to Oklahoma. Interviews were held with the OHP State Crash Team who investigated and created a reconstruction of the incident. The NIOSH/NIJ investigative team reviewed the highway patrol's dash cam videos and files that were available from the initial incident of the overturned tanker truck and video from the follow-on incident injuring the troopers, as well as the files from the OHP State Crash Team investigation and reconstruction. A list of requested information was created and submitted to OHP. The incident site was visited and photographed by the NIOSH/NIJ investigators.

## LAW ENFORCEMENT AGENCY

OHP employs approximately 800 troopers [OHP 2009a] who cover almost 112,000 miles of state highway and serve the state's population of 3.8 million [USCB 2015]. The highway patrol is divided into sections (troops); the majority of the troopers are assigned to one of the 13 field troops that patrol the highways or one of the 10 field troops that patrol the turnpike. The field troopers are the first responders for traffic incidents, civil disorders, and natural disasters [OHP 2009c].

## TRAINING AND EXPERIENCE

All troopers are required to graduate from the OHP Academy. The training consists of 20 weeks of training, which includes the 576 hours the Council on Law Enforcement Education and Training (CLEET) requires of all state peace officers [OSCN 2016]. A more detailed description of the requirements necessary to apply to the OHP Academy and reciprocal certification, as well as required continuing education, can be found in the Appendix.

Oklahoma Statute Title 70, Section 3311, established CLEET as a state government law enforcement agency responsible for establishing the minimum standards for training, courses of study, testing and test scoring, and continuing education attendance requirements of all law enforcement officers in Oklahoma. They also create rules on revocation, suspension, withdrawal, and reinstatement of LEO certification; equipment and facilities standards; minimum qualifications for instructors; minimum standards for basic and advanced in-service courses; and seminars for Oklahoma law enforcement officers.

Prior to attending a CLEET basic academy, each applicant must pass the Test for Safe Participation and the Police Officer Screening and Selection Exam (POSSE). The Test for Safe Participation is a physical assessment test that includes an obstacle course, which must be completed in 2 minutes and 22 seconds. The POSSE test is a reading, writing, and comprehension examination to confirm the applicant can read and write on a level that is needed to perform the requirements of the CLEET basic academy. A minimum score of 70% is needed on the POSSE test for admission.

Cadets at the OHP academy complete thorough classroom and practical training in firearms; criminal and traffic investigation; driving, including reading the roadway and driving skills necessary for emergency response and pursuit; defensive tactics; domestic violence and sexual assault; and alcohol, drug, and

narcotics crimes. A cadet must study and pass all areas before graduating and receiving certification from the academy.

OHP cadets are also required to pass a physical agility test (PAT) at the academy. The cadet must be able to do 32 sit-ups in 1 minute and 23 push-ups in 1 minute, run 300 meters in 64 seconds or less, and run 1.5 miles in 14:15 (min:sec) or less.

Two additional certifications—Intermediate or Advanced—may be awarded to paid, full-time, sworn law enforcement officers within the state of Oklahoma who have a CLEET basic academy certification and subscribe to the Law Enforcement Code of Ethics.

Although the Oklahoma Highway Patrol Academy must follow the CLEET requirements, they require an additional 1,100 hours training before the cadet can graduate. In 2013, the OHP Academy added Traffic Incident Management (TIM) to the required training. The Academy uses training developed by the Strategic Highway Research Program and taught by the National Highway Institute (NHI). The training is 8 hours of classroom lectures, with tabletop exercises and field discussions. Recommended TIM best practices are covered, including:

- Notification and scene size-up
- Safe vehicle positioning
- Scene safety
- Command responsibilities
- Traffic management
- Special circumstances
- Clearance and termination
- Telecommunications [NHI no date]

Upon graduation from the OHP Academy, the Cadet Highway Patrolman is required to serve an initial probationary period of 12 months but may be promoted during the initial probationary period if such officer satisfactorily completes all training requirements prescribed by the Commissioner of the Oklahoma State Courts Network [OSCN 2016].

The trooper, who was struck and killed, was a 2013 graduate from the Oklahoma Highway Patrol Academy and had served with the Highway Patrol, in the same troop, for 18 months.

## **ROAD AND WEATHER CONDITIONS**

The surface of the interstate roadway was asphalt with a grass median separating two lanes in each direction, east and west. A wire cable median barrier alternated positions between the eastbound and westbound lanes; at the scene of the incident, the wire cable barrier was located on the eastbound side of the interstate. Rumble strips were present on the left and right shoulders of the east and westbound lanes. The roadway approaching the scene of the incident had a downward grade of less than 1%.

From archived weather reports, the temperature was approximately 45 degrees F at 10:00 p.m. A light rain was present at the time of the incident and was intermittent throughout the day, causing the roadway to be wet; visibility was reported to be 5 miles. Winds were from the south with an approximate speed of 7 miles per hour [Weather Underground 2015].

**TIMELINE**

The following timeline begins when the witness reports the tanker truck losing control and overturning through the time when the ambulance transports injured persons from the crash scene. Dispatch logs, police reports, phone logs, and witness statements were used to recreate the scene to the best of our ability.

<b>Time</b>	<b>Incident Conditions and Response Operations</b>
<b>2157</b>	<p>A witness makes the initial call to County A 911 of an overturned tanker truck in the westbound lane of Interstate A.</p> <p>County A 911 transfers the call to County B 911.</p> <p>County B 911 asks motorist if he his injured; motorist states he is not injured. County B 911 transfers call to Oklahoma Highway Patrol (OHP) Troop A.</p>
<b>2200</b>	<p>County B 911 dispatches officer to provide traffic control.</p>
<b>2202</b>	<p>County B 911 calls Police Department A advising of the overturned tanker truck on Interstate A.</p>
<b>2204</b>	<p>OHP Troop D receives notification of an incident involving 2 or 3 cars and a semi on its side on Interstate A.</p>
<b>2205</b>	<p>OHP Troop D dispatches three troopers.</p>
<b>2210</b>	<p>Troopers A and B from OHP Troop D arrive at the scene.</p> <p>OHP Trooper A parks his car on the east side of the overturned tanker truck, in the left hand lane and in front of a tractor trailer that had stopped to offer assistance.</p> <p>OHP Trooper B continues to drive past the overturned tanker truck and parks on the west side; the trooper exits his car and walks around to the east side of the tanker truck.</p> <p>OHP Trooper A speaks to driver of overturned tanker truck and witnesses.</p>
<b>2211</b>	<p>OHP Trooper B contacts County A and requests any additional units that can assist with traffic control.</p>
<b>2213</b>	<p>OHP Trooper B requests OHP Communication Center to send an ambulance to evaluate the driver of the overturned tanker truck while OHP Trooper A requests a tow truck.</p> <p>Police Department B and Police Department C dispatch units to assist with traffic control.</p> <p>OHP Trooper A asks a tractor trailer driver, who had stopped to offer assistance, to move his rig. He then repositions his car to better protect the nose of the tanker truck; the car is now parked in the left lane, straddling the middle line, 3–5 car lengths away from the tanker truck.</p>



Time	Incident Conditions and Response Operations
2214	Two deputies from County B Sheriff's Office arrive on-scene to offer assistance. They park on the eastbound side of the highway and walk across the median. Deputy A stops to talk with tanker truck driver, Deputy B walks around tanker truck to location of the two OHP troopers.
2215	OHP Trooper A exits his car; begins walking toward OHP Trooper B and Deputy B who are positioned in front and to the left of OHP Trooper A's patrol car.  OHP Trooper B is bent over examining diesel fuel leaking from overturned tanker truck.
2216	Distracted driver receives a text message.  County Deputy B sees the car approaching them in the left lane at a high rate of speed; he calls out to the two OHP troopers and runs to get out of the way of the vehicle.  OHP Trooper A sees the lights of the approaching car reflecting on the deputy's face and starts to run.  The car strikes OHP Trooper A first, then OHP Trooper B, and finally strikes the overturned tanker truck.
2217	Hearing the crash, Deputy A, who is standing on the eastbound side of the overturned tanker truck, runs to the west side where OHP Trooper A and Deputy B are located.  Deputy A makes an officer-down call; he requests all and any backup available, then runs to OHP Trooper A, who is lying in the median.  The same witness who made the initial call of the overturned tanker truck calls County A 911 again. She explains she is still at the same tanker truck wreck and now a second crash has occurred; an officer was struck and someone has been killed. She is again transferred to County B Sheriff's Office.
2220	OHP Troop D attempts contact with OHP Trooper A and OHP Trooper B. No response is received.
2222	OHP Trooper C arrives on-scene.
2227	Units on-scene advise the highway needs shut down; advise any available unit to shut down westbound traffic.
2236	County B Sheriff's Office receives a call from a LEO that one trooper is fatally injured and a second trooper is down.
2250	Ambulance leaves the scene en route to hospital with injured OHP Trooper A.
2252	OHP Troop D dispatch is notified OHP Trooper B's injuries are fatal.
2318	Ambulance transports motorist to hospital.

## INVESTIGATION

At approximately 2157, on January 31, 2015, a witness reported to the County A Sheriff's Office 911 call center that an overturned tanker truck was in the left westbound lane of Interstate A. However, due to the location of the incident, the call was transferred to County B Sheriff's Office who then transferred the call to Oklahoma Highway Patrol (OHP) Communication Center and notified Police Department A of the incident. OHP Troop D receives a call at 2204 stating there is an incident involving two to three cars and a semi on its side. At 2205, OHP Troop D dispatched three troopers to respond to the scene. County B deputies were also dispatched to assist with traffic control.



**Photo 1. Crash scene.**  
*(Photo courtesy of Oklahoma Highway Patrol.)*

OHP Trooper A and OHP Trooper B arrived at the scene of the overturned tanker truck at 2210. Trooper A parked his car on the east side of the overturned tanker truck, in the left-hand lane and in front of a tractor trailer that had stopped to offer assistance. The patrol unit's dash cam was on and the emergency lights were activated with the directional feature indicating that approaching motorists should move to the right. Trooper B continued to drive past the overturned tanker truck and parked with the emergency lights activated, in the left lane on the west side of the tanker truck; the tractor trailer that had stopped to offer assistance prevented him from parking on the same side as Trooper A. Trooper B exited his car and walked around to the east side of the overturned tanker truck. Trooper B contacted County A and requested any available units to assist with traffic control.

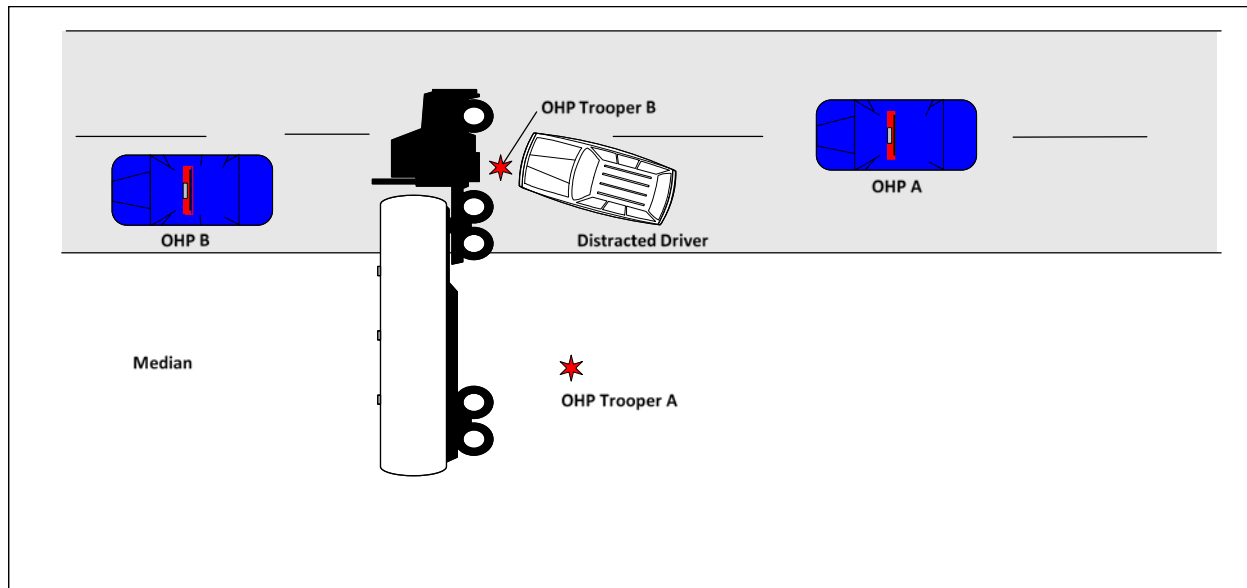
After exiting his car, Trooper A approached the driver of the overturned tanker truck to determine if he was injured and spoke with those who witnessed the crash. The trooper asked the driver of the tractor trailer who had stopped to offer assistance, to move his truck in order to make the lights on the patrol car more visible to oncoming traffic.

Between 2210 and 2215, Trooper B requested the OHP Communication Center to send an ambulance to evaluate the driver of the overturned tanker truck while Trooper A requested a tow truck. Police Department B and Police Department C dispatched units to assist with traffic control.

Two deputies from County B Sheriff's Office arrived on-scene. They parked on the eastbound side of the highway and walked across the median. One deputy stopped to talk with the tanker truck driver. The other deputy walked around the overturned tanker truck to the location of the two troopers.

Trooper A repositioned his car to better protect the nose of the overturned tanker truck; the car was parked mostly in the left lane but straddling the middle line, 3–5 car lengths away from the tanker truck. He exited his car and walked toward Trooper B and Deputy B, who were in front and to the left of the newly repositioned patrol car. Deputy B was facing west toward oncoming traffic. Trooper B was bent over, assessing diesel fuel that was leaking from the overturned tanker truck with his back toward oncoming traffic.

At 2216, Deputy B saw a car approaching them in the left lane at a high rate of speed; he called out to the two troopers and ran to get out of the way of the vehicle. Trooper A saw the lights of the approaching car reflecting on the deputy's face and started to run. Trooper B was unable to move from the path of the approaching car (see Diagram).



**Diagram. Location of vehicles at time when officers were struck.**

The car struck Trooper A first, throwing him approximately 55 feet into the median. The car then struck Trooper B, throwing him 49 feet westward and into the undercarriage of the overturned tanker truck. Finally, the car struck the overturned tanker truck. The impact from the car displaced the overturned tanker truck approximately 4.5 feet. The diagram shows the location of the vehicles and troopers at the time immediately following the crash. Deputy A, who was standing on the eastbound side of the overturned tanker truck, ran to assist Deputy B and Trooper A.

Deputy A made an officer-down call at 2217, requested all and any available backup, and ran to Trooper A, who was critically injured and lying in the median calling for help. The deputy could see a person on the ground between the overturned tanker truck and the car, but was not aware it was Trooper B. The witness who had called in the overturned tanker truck saw the troopers being struck and called 911 as she ran to the fatally injured Trooper B. The driver of the car that had struck the troopers attempted to get out of the vehicle but was told to get back in the car and stay there.

After the officer-down call was made, more than 15 officers from 12 different agencies responded as well as 7 fire fighters and 7 emergency medical technicians (EMTs). Trooper B was pronounced dead at the scene. The first EMTs to arrive were directed to Trooper A. They found him surrounded by other officers and covered with coats to keep him warm and dry. An assessment was made on Trooper A, and he was placed on a backboard for transport. As the trooper was being taken to the ambulance, the motorist who had struck the troopers again exited the car; an EMT did a quick assessment of the driver and then returned to assist with Trooper A. At approximately 2250, the ambulance left the scene with Trooper A, en route to a Level I trauma center. Traffic was being diverted off the interstate, and a rolling block was



used to refrain traffic from entering the interstate, providing the ambulance a clear route to the trauma center.

After the injured trooper was transported to the trauma center, the motorist of the car was assessed and at approximately 2230 was taken to a local hospital for evaluation and have a blood alcohol level drawn. When he first exited his car he said he could not remember anything; however, later in his statement to the OHP, the motorist said he remembered seeing the emergency lights, thought it was a routine traffic stop, and moved into the left lane. As he got closer, he could see people with flashlights walking around and then someone running. When he was asked how far away he was when he first saw the lights, the motorist responded not more than a mile away.

During the motorist's interview, he stated that he may have been texting; the last thing he remembered was getting a person's address and that he was probably putting the address in a mapping app. When asked if he was using any other types of phone apps prior to the crash, he responded possibly a second texting app and maybe Facebook. The motorist had two cell phones in his possession at the time of the crash. OHP obtained a search warrant to examine all data available on both cell phones and requested assistance from the State Bureau of Investigations (SBI) for the analysis. The SBI was able to obtain data from both cell phones using data extraction software. The extensive data was retrieved and reports were created for the OHP.

OHP requested from the phone carrier the historical information for both cell phones. Using cell towers and the details of the phone's call records, the phone carrier was able to locate where the motorist was when the cell phone transactions were made. Each cell tower has a code assigned by the carrier to identify the region the tower is located, a tower number, longitude, latitude, and sector. The sector identifies what side of the cell tower was used for the transaction. Using this information, the cell phone transactions could be mapped along the interstate.

By combining the phone carrier and SBI reports between the times the motorist claimed to have started driving at 1956 until the crash occurred, 144 cell phone transactions occurred. Within the 16 minutes prior to the crash, the motorist sent or received 19 text messages; this was more than one text per minute. The last message was received at 2216. The driver was criminally charged with first degree manslaughter.

The OHP State Crash Team performed a reconstruction study that included a skid/friction test of the road and a visibility study at the crash scene. The reconstruction report estimated the speed of the car at the point of impact with the troopers to be between 56 and 61 miles per hour (mph) and a speed of 51–52 mph at the point of impact with the overturned tanker truck. This was computed using the skid resistance and the grade of the road. This is consistent with the motorist's statement of having the cruise control set at 62 mph.

The visibility was measured in the middle of the inside westbound lane from the rear bumper of the patrol car parked on the east side of the overturned vehicle. The trooper's emergency lights were first visible to approaching traffic at 4,371 feet, and at 865 feet it was clearly visible that the patrol car was parked in the inside westbound lane.

The collision history for the area where the crash occurred was examined for 2009–2014. The information was obtained by the OHP from the Collision Analysis and Safety Branch of Oklahoma Department of Transportation. The data were categorized for wet/dry roads, degree of injury, and vehicle type. One crash occurred during the 6 years. The crash occurred during the daylight hours on dry roads and was due to one vehicle following too close.

## CONTRIBUTING FACTORS

Occupational injuries and fatalities are often the result of one or more contributing factors or events that result in the injury or fatality. NIOSH investigators identified the following contributing factors in this incident:

- Distracted motorist
- Visibility/Weather— dark, raining, wet roadway
- LEOs standing in partially blocked lane of traffic, upstream of the lane closure
- LEOs positioned with back to the direction of oncoming traffic
- Positioning of patrol cars—one before, one beyond
- Incident occurred during scene size-up
- Roaming civilians distracting LEOs
- 911 communication system

## CAUSE OF DEATH

The Oklahoma Office of the Chief Medical Examiner listed the cause of death as acute multiple blunt force trauma.

## RECOMMENDATIONS/DISCUSSION

The following recommendations focus on methods that could be used to eliminate or mitigate the factors identified as contributing to this incident. They are not a reflection of any particular agency but are intended for consideration by law enforcement agencies, state and local governments, and departments of transportation nationwide, as well as safety researchers and the general public.

***Recommendation #1: State, county, and municipal law enforcement agencies should consider developing a standard operating procedure (SOP) for establishing safe work areas for emergency responders at highway/roadway incidents.***

Discussion: Each year, thousands of people are killed and hundreds of thousands are injured by distracted motorists [Texting and Driving Safety 2015]. Using a cell phone and texting are the two most common distractions of motorists. Statistics show 77% of young adults feel confident they can safely text and drive and 27% of adults have either sent or read text messages while driving [Texting and Driving Safety 2015]. In 2013, distracted motorists were responsible for:

- 10% of fatal crashes, killing 3,154 people.
- 18% of injury crashes; it is estimated 424,000 people were injured.
- 16% of all police-reported motor vehicle traffic crashes.
- Killing 480 **nonoccupants** [NHTSA 2015].

As of June 2016, 46 states and Washington, DC, have bans on texting while driving. Forty-one of those states and Washington, DC, consider texting while driving a primary offense; a police officer can stop and cite a driver for an observed violation. For the other five states, texting bans are secondary, meaning an officer must have another reason to stop a vehicle—like speeding or running a red light—before a motorist can be cited for texting while driving [GHS 2016]. Results from a longitudinal study show those states with texting while driving as a primary offense had a decrease in the number of traffic fatalities, whereas those states where the offense is secondary show no decline [Ferdinand et al. 2014].

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Texting laws can be hard to enforce; it is difficult to actually see the motorist manipulating the buttons on a cell phone from the level of a patrol unit. In states with texting bans but not hand-held bans, a motorist may claim they were dialing a phone number when stopped by a police officer; whereas in states that ban all cell phone use, texting laws are more easily enforced.

In a previous version of the Oklahoma law, texting while driving was a secondary offense; on November 1, 2015, a new law went into effect that made texting while driving a primary offense. The law states, “It shall be unlawful to operate a motor vehicle on any street or highway within this state while using a hand-held electronic communication device to manually compose, send, or read an electronic text message while the motor vehicle is in motion” [Oklahoma State Legislature 2015]. The new law is named after the troopers struck in this crash.

For one week after the texting ban went into effect, the OHP used a school bus to travel up and down an interstate to look for motorists who were texting. Sitting in the school bus, they were able to see down into the vehicles and see the motorists using their device. Within 20 minutes, the Oklahoma Highway Patrol stopped eight motorists who were texting [OHP uses school bus, 2015].

“Traffic-related incidents were the leading cause of officer deaths in 2015, killing 52. Thirty-five officers died in automobile crashes, 11 were struck and killed outside their vehicle and six were killed in motorcycle crashes. Traffic-related fatalities increased 6 percent from 2014 when 49 officers were killed” [NLEOMF 2016]. Thus, the importance of a continual public awareness campaign—public service announcements, bill boards, and hand-outs—are all methods used by states to promote the risks of driving distracted. The methods of conveying the message should be designed to reach different age groups of motorists. Free resources are available including those found at:

- Emergency Responder Institute <http://www.respondersafety.com/Videos/Slow-Down-Move-Over.aspx>
- Distraction.Gov <http://www.distraction.gov/take-action/educators.html>

***Recommendation #2: State, county, and municipal law enforcement agencies should consider developing a standard operating procedure (SOP) for establishing safe work areas for emergency responders at highway/roadway incidents.***

Discussion: Situational awareness can be defined as being aware of one’s surroundings and identifying potential threats or dangerous conditions that can occur around you. It is important for all LEOs to maintain and practice good situational awareness throughout the operation—especially at highway/roadway incidents—to better protect themselves and those around them.

The primary concern when arriving on the scene is to establish a safe work area and provide protection for everyone involved. The initial action should be to place the patrol units in the best position to protect responders, prevent further incidents at the scene, and warn motorists of the crash. Officers should use all appropriate emergency lighting available and consider the lay of the land when positioning response vehicles to protect the scene.

Responders should locate themselves in the most protected space possible that allows them to accomplish the tasks they need to perform. If you don’t need to be near the traffic, go as far away as possible. Officers should not lose sight of their own safety by standing between vehicles or turning their back to traffic [Law Enforcement Explorer 2010]. Officers should not assume that once traffic signs and blocks have been established, the scene is safe, everything is calm, and they are no longer at risk.

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Continuous assessments of the scene are necessary to keep the scene as safe as possible, to identify safety factors that must be considered, as well as to adjust the traffic management system accordingly as the response to the incident continues. Three phases or processes are necessary to achieve situational awareness: perception of the elements in the environment, understanding the current situation, and predicting future actions of the elements in the environment [Endsley 1995].

A crash scene is a dynamic situation and can change in seconds; a threat can come from any direction, exposing the LEO to 360-degree vulnerability. Not having the capability to apply or manage situational awareness can create more problems for the LEO and others present at the scene. Dr. Gasaway [2016], *Situational Awareness Matters*, states: “Once the initial size up is complete and you decide on your action plan, it is very easy to move right into the implementation of your plan without giving thought to [the] outcome of the plan first. When you force yourself to think about the outcome, it causes you to think through the steps to achieve the plan and you may be able to see where your plan might go awry before you start down that path.”

The Emergency Responder Safety Institute states that training is the first line of defense and recommends training all emergency response personnel to “*work under the premise of if it’s moving, and you’re not driving it, it is out to kill you*” [ERSI 2009]. All responders should understand and appreciate the risk they are exposed to when operating in or around moving vehicles. Many variants can influence approaching vehicles, such as:

- Speed—can be very slow or exceeding the speed limit.
- Operators—can be vision impaired, under the influence of drugs or alcohol, distracted, or have a medical conditions that affects their judgment or abilities.
- Weather—snow, rain, or other inclement weather.
- Time of day—darkness reduces visibility and reaction time; sunlight can obscure visibility.
- Visual obstructions—lay of the land, buildings.

At the time the distracted driver struck the two troopers, Trooper A had just exited his patrol unit, after repositioning it to provide better protection, and approached Trooper B and Deputy A, who were communicating with each other. Face-to-face communication is the most common body position taken when information is being shared [PAHO, no date], and in this incident, not everyone was facing the oncoming traffic.

Although the deputy spotted the oncoming vehicle, there was not sufficient time for the troopers to move from harm’s way.

The following techniques can be used to teach and improve situational awareness [BeSurvival.com 2015; Reeve 2013].

### *Assess your environment:*

- Look around you and take account of the type of situation you are in. Different environments will require different levels of focus to maintain situational awareness.
- Determine a baseline. Identify what should be considered normal sounds, behaviors, and sights in your current situation so you have a frame of reference to compare unusual behavior.
- Once a baseline is established, identify and consider any possible sources of dangerous situations.
- Create scenarios in your mind and plan for ways to address them.

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*Control your focus and attention:*

- Avoid Normalcy Bias, the act of ignoring prospective threats because it seems unlikely that a dangerous situation might occur.
- Avoid focusing on one thing so hard that you are too distracted to identify potential threats.
- Fight against complacency.

*Be aware in dangerous situations:*

- Continually assess and reassess the situation.
- Position yourself to easily identify threats.
- Immediately identify dangerous factors of those who enter your personal space.

***Recommendation #3: State, county, and municipal law enforcement agencies should consider maximizing the use of patrol units and other responding emergency vehicles in the design of the temporary traffic control area as they arrive (i.e., deploying the vehicles).***

Discussion: Emergency response units can be used to protect emergency responders and secure the scene by positioning their units to block the flow of traffic. The Emergency Responder Safety Institute has developed a safe parking or blocking procedure using the *Manual on Uniform Traffic Control Devices* (MUTCD) guidelines [ERSI 2016]. The first emergency responder to arrive must size up the scene and position the patrol unit to create a safe work zone and protect the scene. The coverage is maximized with additional patrol units and other responding vehicles as they arrive; vehicles may need to be repositioned as the response continues. The largest vehicle should be used as the initial blocking vehicle. No responder should remain in a vehicle or unit that is used for blocking as no protection exists for these units.

Patrol units can be parked in an angle or linear position for blocking. In the angle position the patrol unit is parked with the front end angled toward the middle of the road; whereas in the linear position, the patrol unit is parked in line with the stopped vehicle. The strategy for use of the angle position is the engine block provides more protection for the law enforcement officer (LEO); however, this position exposes the LEO to traffic upon entering and exiting his patrol unit as well causing them to walk into traffic to go around the front end of the patrol unit. [Law Enforcement Explorer 2010].

Ford Motor Corporation used computer simulation tools to research various blocking positions and placement of LEOs. Although no one blocking position is expected to provide coverage for all LEO situations, the linear blocking position offered the most protection:

In the event of a collision between a striking vehicle and the police vehicle, the angle of the police vehicle wheels steer the vehicle away from the pedestrian officer while the spacing of at least 15 feet or one car length allows enough distance for the police vehicle to track away from the pedestrian officer. The left offset and overlap between the police vehicle and the stopped vehicle provides coverage for the pedestrian officer from oncoming traffic. Orienting the police vehicle parallel to the roadway presents the smallest target for an errant vehicle yet still protects the officer. As compared to the other configurations tested, the above orientation resulted in the highest probability of a pedestrian police officer avoiding involvement in the accident, a result 3 times higher than some of the other configurations tested [Southern Illinois University, no date].

The Oklahoma Highway Patrol (OHP) encourages all troopers to use linear positioning and has produced a training bulletin to provide guidance and information as to the importance of using this position for



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blocking. The bulletin provides case studies involving OHP crashes, including the description of the crash and the degree of injury and recovery time of the troopers involved.

The bulletin provides two additional reasons for using the linear positioning. First, the “patrol units are structured to dissipate energy (collision forces) when struck on the front and rear, not at sharp angles to the side” [Southern Illinois University, no date].

The second reason is the lighting on the patrol units. Whereas older rotating lights were visible in a 360-degree radius no matter how the patrol unit was positioned, the new LED lights become less visible as the angle of the patrol unit is increased. Thus, a patrol unit positioned in an angle provides less visibility or warning to motorists approaching the LEO [Southern Illinois University, no date].

The optimal placement of Trooper B’s patrol unit would have been to the left of Trooper A’s patrol unit; however, when Trooper B arrived at the scene, a tractor trailer that had stopped to offer assistance was parked in a position that did not give Trooper B that option. For that reason, Trooper B proceeded past the overturned tanker truck and parked. Trooper A instructed the tractor trailer driver to move his rig so oncoming traffic could see his lights. The two troopers had discussed that once the rig was moved, Trooper B would reposition his patrol unit to the left of Trooper A’s unit to provide more protection. Within 3 minutes of asking the tractor trailer driver to move his rig, Trooper B was struck by the distracted motorist.

***Recommendation #4: State, county, and municipal law enforcement agencies should consider developing a standard operating procedure (SOP) that includes guidance on how to properly establish a temporary traffic control plan, including advance warning and transition areas for highway/roadway emergency incidents.***

Discussion: Developing an SOP for traffic incident management may improve the safety of emergency responders. The National Fire Protection Association (NFPA) develops voluntary standards and recommended practices that can be adopted by any agency or organization. NFPA 1091 *Standard for Traffic Control Incident Management Personnel Professional Qualifications (2015 Edition)* applies to anyone who performs temporary traffic control (TTC) duties at incident scenes, regardless of the agency to which the individual belongs. The standard was developed in response to the need to mitigate risks for all responders and specifies the minimum job performance requirements (JPR) for traffic control incident management personnel (TCIMP).

TTC at incident scenes is not uniformly taught across all responder disciplines and in some cases, it is not formally taught at all. The NFPA 1091 standard establishes the job performance requirements and training criteria for all persons involved in TTC at incident scenes. Adopting a common protocol across agencies enables responders to work together and have less confusion at the incident scene. To be qualified as a TCIMP, the responder must meet each of the nine JPRs as described in NFPA 1091, Chapter 4. Each JPR contains a description of the responsibility, as well as a requisite knowledge and requisite skills section. The nine JPRs include:

- Size up incident and establish command.
- Position vehicle to provide a Traffic Incident Management Area (TIMA)
- Establish the TIMA.
- Establish advance warning.
- Operates a member of a team within a TIMA using unified command.

- Manage noninvolved persons.
- Monitor and adjust TTC to address problems or changing conditions.
- Adapt the TIMA in response to hazard.
- Perform demobilization functions [NFPA 2015].

The standard also stresses the importance of reinforcing the training; Section 1.2.6 states that the TCIMP “shall remain current with general knowledge and skills and job performance requirements addressed for the level of qualification” [NFPA 2015].

The *Traffic Incident Management Handbook* contains detailed information to assist law enforcement agencies in creating such policies and is based on the *Manual on Uniform Traffic Control Devices* (MUTCD) [FHWA 2010]. MUTCD contains the standards for traffic control devices and direction for TTC used to protect emergency responders, victims, and others at the incident scene. MUTCD defines a TIMA as “an area of a highway where temporary traffic controls are installed, as authorized by a public authority or the official having jurisdiction of the roadway, in response to a road user incident, natural disaster, hazardous material spill, or other unplanned incident” [FHWA 2009a]. In addition, “It is a type of TTC zone and extends from the first warning device (such as a sign, light, or cone) to the last TTC device or to a point where vehicles return to the original lane alignment and are clear of the incident” [FHWA 2009a].

Each TTC zone is different, depending upon:

- type of work
- duration
- location
- type of highway/roadway
- lay of the land
- lighting
- weather

The MUTCD Chapter 6G, “Type of Temporary Traffic Control Zone Activities,” discusses the various applications for each type of TTC zone; however, these applications do not cover every possible situation and should be modified as needed.

Chapter 6I, “Control of Traffic through Traffic Incident Management Areas,” provides guidance on the recommended size of a TIMA, depending upon road configuration, vehicle speed, and weather conditions. The purpose of temporary traffic control at a TIMA is to alert motorists to the incident, divert the traffic away from the incident area, and protect emergency responders as well as others in the area [FHWA 2015]. The TIMA begins where the motorist is first warned of an upcoming incident and is also dependent on traffic speed, motorist expectation, weather, and roadway/highway conditions [FHWA 2010].

The MUTCD divides incidents into three general classes according to the duration: major, intermediate, and minor. Each class has unique traffic control characteristics and needs.

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Major traffic incidents typically involve hazardous materials, fatal traffic crashes involving numerous vehicles, and other natural or man-made disasters. These traffic incidents typically involve closing all or part of a roadway facility for a period exceeding 2 hours.

Intermediate traffic incidents typically affect travel lanes for a time period of 30 minutes to 2 hours and usually require traffic control on the scene to divert road users past the blockage. Full roadway closures might be needed for short periods during traffic incident clearance to allow traffic incident responders to accomplish their tasks.

Minor traffic incidents are typically disabled vehicles and minor crashes that result in lane closures of less than 30 minutes. On-scene responders are typically law enforcement and towing companies and occasionally highway agency service patrol vehicles [FHWA 2009a].

First responders should evaluate the incident scene and deploy the proper TTC, paying special attention to the upstream traffic and the decision sight distance of drivers. The decision sight distance is the distance a driver needs to become aware of something unexpected or a hazard in a roadway, recognize the hazard, develop a plan to respond (such as an appropriate speed and path), and then safely complete the action [Transportation Research Institute 1997].

Studies have been conducted to estimate brake reaction times for specific situations. Driving-related variables such as what the driver is expecting, driver's age, urgency, and cognitive load were considered in estimating the time from the motorist's perception to brake reaction. Expectancy has the greatest effect; a surprised motorist takes longer to brake. Evidence suggests that motorists respond faster under shorter time to collision and are able to steer away faster than braking [Green 2013a]. A motorist's brake reaction time is slower when his cognitive load is high; winding or complex roadway, looking at in-car displays, and cell phone use all increase a motorist's cognitive load. The American Association of State Highway and Transportation Officials estimates that for normal road events in good weather with high visibility, a 2.5-second brake reaction time is normal for 90%–95% of the population [Green 2013a]. This, however, does not include the time it takes the vehicle to stop. According to the *Traffic Incident Management Handbook*, on a high-speed roadway/highway, the distance, in feet, for placing the first advanced warning should be computed by multiplying the speed limit by 8–12 and on an open roadway/highway the distance should extend 1,500 feet or more [FHWA 2010].

Risks to emergency responders are increased during nighttime hours; visibility is reduced and the number of motorists who are drowsy, fatigued, or impaired may be increased. Rain and fog also affect a driver's perception by causing light that is normally reflected back to the eye to be scattered in many directions. As a result, rain reduces reflectivity, making lines on the road harder to see and making the roadway appear darker. Fog, being smaller droplets of water, causes the light to scatter even more and decreases the amount of contrast. This lack of contrast can cause drivers to misjudge their speed and the distance of objects; studies have shown fog also makes it harder to determine if an object is moving or stationary. Poor visibility also increases the amount of concentration that a driver places on the roadway directly in front of them and not on the surrounding areas [Green 2013b]. Additional temporary traffic controls should be considered to increase protection for emergency responders, such as a longer advanced warning area and more guidance for motorists, as well as added visibility during nighttime and adverse weather conditions.

The troopers were dispatched to the incident without having any details or specific information. Had OHP Troop D dispatch been able to speak with witnesses on the scene and or the truck driver, they would have had the following information:

- overturned tanker truck
- the tanker truck was carrying a load
- the left shoulder and lane 1 were totally blocked, and the truck cab intruded into lane 2
- no cars were involved

This information would have identified the incident as a major traffic incident. Following the TIM response protocol, additional units, including a fire engine, could have been deployed and provided additional blocking, making the scene more visible to motorists and safer for the emergency responders.

In this incident, the troopers were on the scene of the initial crash 6 minutes before the second crash occurred. During this time, the troopers:

- Discussed necessary blocking.
- Requested additional units for traffic control.
- Determined the need for medical assistance.
- Identified witnesses.
- Were in process of inspecting the tanker truck for damage or leakage.

Both troopers on the scene had received traffic incident management (TIM) training; in 2013, the training became part of the OHP academy curriculum, and all active Oklahoma Highway Patrol (OHP) troopers are now required to have TIM training. A refresher course is offered as annual training but is not mandatory.

Warning lights on emergency response vehicles provide warning to motorists of an emergency situation, especially during night time hours; however, too many lights create a glare and can confuse motorists. The MUTCD recommends that once a good TTC “*is established through placement of advanced warning signs and traffic control devices to divert or detour traffic, then public safety agencies can perform their tasks on-scene with minimal emergency vehicle lighting*” [FHWA 2009a].

At the time of the incident, OHP units had emergency lights on top of their vehicles and flashing lights on the bumpers. After observing the effect that emergency lighting has on motorists, this department has removed flashing lights from the bumpers of patrol cars. The consensus was that it was better to be seen and for the motorist to know what to do than to have too many lights and cause confusion. The units now have top lights only that use either one or a combination of colors, as well as directional capability to direct traffic left or right. An OHP training bulletin instructs troopers to turn off emergency equipment used to travel to a crash scene and convert the emergency lights to the directional function [OHP, no date].

***Recommendation #5: State, county, and municipal law enforcement agencies should consider developing and implementing a standard operating procedure (SOP) for response and vehicle/resource deployment protocols for highway/roadway incidents involving hazardous materials.***

Discussion: A standard operating procedure (SOP) allows law enforcement officers to make decisions more rapidly and build confidence, knowing that from one incident to the next, the procedure will be the same, thus, enhancing efficiency, effectiveness, and safety. The SOP should address what resources are

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needed for various types of incidents and for temporary traffic control for roadways/highways within their jurisdiction.

The National Fire Protection Association (NFPA) develops voluntary standards and recommended practices that can be adopted by any agency or organization. NFPA 471 *Recommended Practice for Responding to Hazardous Materials Incidents* [NFPA 2002] outlines the minimum requirements and operating guidelines that should be considered when responding to or performing traffic control at incident scenes involving hazardous materials. The recommendations are based on federal laws and regulations and contain planning guides for each of the response levels and guidance on site safety, personal protective equipment, and lessening the severity of the incident. Planning and training are essential. NFPA recommends reviewing policies for responding to hazardous materials annually and conducting training exercises to maintain proficiency.

The Federal Highway Administration has produced a series of primers, including *Traffic Incident Management in Hazardous Materials Spills in Incident Clearance*. LEOs should be aware of spill management just as they are of traffic incident management. Spill management implements procedures to reduce clean-up time and disposal of hazardous material, as well as strategies to keep traffic moving past the incident without adding additional risk to emergency responders or others at the scene. Therefore, all emergency responders should be able to size up the incident scene, recognize potential hazards, and identify hazardous material [FHWA 2009b].

Gasoline, diesel, and other vehicle fluids are considered hazardous materials; however, if the amount is less than the reportable limit and the emergency responders have been trained and have the proper equipment, it is usually accepted that emergency responders can clean up the spill. The amount of fluids, excluding fuel on most vehicles, is approximately 2.5 gallons, and the maximum fuel tank capacity will vary with the vehicle make and model. The largest tank on a tanker truck—the saddle tank—normally holds 70 gallons; therefore, depending on the number of tanks on the truck, the maximum capacity for fuel for a commercial vehicle can be as much as 350 to 420 gallons and far exceeds the reportable limit.

According to the Federal Highway Administration:

A hazardous materials cargo spill is a release of a substance or material capable of posing an unreasonable risk to health, safety, or property when transported for commercial purposes. Unlike a vehicular fluid spill, a multitude of factors dictate the size and nature of the spill, including the type of material being transported, the original load size, the physical properties of the material, and the amount of damage to the transporting vessel. According to the FHWA Office of Operations website dealing with hazardous materials response procedures, while some materials are extremely hazardous in any quantity, hazardous materials response procedures are frequently invoked when a gasoline or diesel fuel spill exceeds a legally specified amount, typically 25 gallons. For other larger spills, or for incidents involving hazardous cargo, well-defined policies and practices subscribed to by all the responder agencies will facilitate safe and timely action for the necessary clean-up [FHWA 2009b].

Initiating pre-incident planning and bringing agencies together to establish policies and best practices will allow incident management operations to be carried out efficiently and safely when the need arises. Mutual agreements between law enforcement and fire departments is important for highway/roadway incidents involving hazardous materials. It is recommended that when a law enforcement officer is dispatched to a crash scene involving a tanker truck, a fire department is also signaled to respond. Typical roles and responsibilities at traffic incidents assumed by fire departments include:



- Protecting the incident scene.
- Controlling fires.
- Providing initial HAZMAT response and containment.
- Rescuing crash victims from contaminated environments.
- Rescuing crash victims from wrecked vehicles.
- Providing emergency medical care and arranging transportation for the injured.
- Assisting in incident clearance.
- Serving as incident commander.
- Providing traffic control [FHWA 2009a].

In this incident, a fire engine was not dispatched for the overturned tanker truck. OHP dispatch was not aware that the overturned vehicle was a tanker truck carrying a load. Had they been able to speak with those persons at the crash scene, including the tanker truck driver, OHP could have obtained this information and dispatched the necessary agencies.

According to the amount of time it took for the fire engine to arrive once called out, it is conceivable that a fire engine could have been at the scene within the same response time as the two troopers. Following the TIM response protocol, the fire engine could have provided additional blocking, making the scene more visible to motorists and safer for the emergency responders.

***Recommendation #6: State, county, and municipal law enforcement agencies should ensure all officers wear suitable high-visibility, retro-reflective vests when operating at highway/roadway incidents.***

Discussion: To meet minimum requirements for high-visibility apparel, responders should only use vests that meet a Class II requirement of ANSI/ISEA 107-2010 (or subsequent revisions) or the requirements of ANSI/ISEA 207-2006 for Public Safety Vests. The minimum requirements include:

- Fluorescent background material.
- Fluorescent material may be yellow-green, orange-red, or red.
- Retro-reflective material arranged for 360-degree visibility.
- The garments should be labeled as compliant with ANSI/ISEA 107-2010, ANSI/ISEA 207- 2006, or subsequent revisions.

LEOs who are operating at a traffic incident and whose assignment places them in potential conflict with motor vehicle traffic should wear a garment with fluorescent and retro-reflective material visible from all directions. The International Safety Equipment Association's (ISEA) American National Standard for High-Visibility Apparel and the American National Standards Institute (ANSI) Standard 107-1999 provide guidance standards for the use of high-visibility safety apparel. The *Manual on Uniform Traffic Control Devices (MUTCD)* for high-visibility safety apparel is based on these standards, and much of the equipment in use is designed to the ISEA and ANSI standards. The standard defines high-visibility safety apparel requirements for retro-reflectivity, type of material, colors, and fluorescence.

MUTCD Section 6D.03, Worker Safety Considerations Standard states:

All workers, including emergency responders, within the right-of-way who are exposed either to traffic (vehicles using the highway for purposes of travel) or to work vehicles and construction equipment within the TTC zone shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled

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American National Standard for High-Visibility Safety Apparel and Headwear or equivalent revisions, and labeled as meeting the ANSI 107-2004 standard performance for Class 2 or 3 risk exposure.

When uniformed law enforcement personnel are used to direct traffic, to investigate crashes, or to handle lane closures, obstructed roadways, and disasters, high-visibility safety apparel as described in this Section shall be worn by the law enforcement personnel. [FHWA 2009a].

Although the rule applies to law enforcement officers when directing traffic, investigating crashes, handling obstructed or closed lanes, obstructed roadways, and disasters, the rule does not apply to LEOs who are conducting traffic stops, searches, manhunts, or any other duty that is confrontational. These exceptions were granted in response to concerns that the high-visibility, retro-reflective vest would make LEOs a more visible target, especially at night [NIJ 2010].

The National Traffic Incident Management Coalition, working with ISEA, sought and successfully obtained a standard for a public safety vest designed to address concerns of public safety responders working at incident scenes. In 2007, ANSI/ISEA released a new standard, ANSI/ISEA 207-2006, American National Standard for High-Visibility Public Safety Vests. ANSI 107-2004 specifically prohibited the classification of sleeveless garments when worn alone. However, this standard did not meet certain special needs of responders, that of apparel that can fit over belt-mounted equipment and apparel that will tear away if caught on a moving vehicle. ANSI/ISEA 207-2006 establishes design, performance specifications, and use criteria for high-visibility vests and meets the special needs not addressed under ANSI 107-2004. It should be noted that ANSI 207-2006 does not replace ANSI 107-2004 and that the new standard is intended to primarily meet the needs of public safety response person [3M 2016].

In 2015 ANSI combined ANSI/ISEA 107 and ANSI/ISEA 207 standards into a single document and added a Type category. The Type supports the U.S. Federal Worker High Visibility Regulation in the MUTCD standards and include:

- Type O – off road
- Type R – roadway
- Type P – public safety

Type R, roadway, clothing are compliant for workers on or near a public access roadway and Type P, public safety, clothing add a compliance option for emergency and incident responders [3M 2016].

The Emergency Responder Safety Institute offers a free training module explaining the federal regulations pertaining to high visibility safety apparel. The module also reviews “*objections of law enforcement officers to wearing this apparel, presents facts that address these objections, and details a set of solutions to address officers' objections and improve compliance with federal regulations, state regulations, and local policies*” [ESRI, no date].

Oklahoma Highway Patrol policy permits the troopers to stabilize the scene and determine that those present are not confrontational before donning their high-visibility, retro-reflective vests. In this case, the officers had assessed the scene and made a trip back to their vehicles but did not don the high-visibility, retro-reflective vest. The use of high-visibility, retro-reflective vests may have increased the visibility of the LEOs and permitted the motorist to see the LEOs sooner, allowing more time to react. In this incident, the distracted motorist stated he saw the LEOs but it was too late for him to do anything.

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## INVESTIGATOR INFORMATION

This incident was investigated by Paul Moore and Jamie Lancaster of the Surveillance and Field Investigations Branch, Division of Safety Research, NIOSH, located in Morgantown, West Virginia, and Brian Montgomery of the Office of Science and Technology, National Institute of Justice, Office of Justice Programs, and U.S. Department of Justice. This report was authored by Jamie Lancaster. An expert subject matter review was conducted by Mike Brown and John Marshall of the National Highway Traffic Safety Administration, as well as Jeffrey King and Kim Vasconez of the Federal Highway Administration.



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## APPENDIX

### *Basic requirements to apply to the Oklahoma Highway Patrol Academy*

The requirements to apply to the academy include:

- Minimum of 21 years of age, but no older than 45 when the academy starts.

### *Education*

- Must possess an associate degree or completed a minimum of 62 semester hours from an accredited college or university as denoted in the Database of Accredited Post-secondary Institutions and Programs and whose hours are transferable between such recognized institutions; or
- Shall have successfully completed thirty-two (32) semester hours from an accredited college or university as denoted in the Database of Accredited Post-secondary Institutions and Programs and whose hours are transferable between such recognized institutions and has completed three (3) years of active military or reserve military service by the start of the academy; or
- Shall have successfully completed thirty-two (32) semester hours from an accredited college or university as denoted in the Database of Accredited Post-secondary Institutions and Programs and whose hours are transferable between such recognized institutions and has received an honorable discharge from any active military or reserve military service. Military service is not accepted as a substitute for the mandatory educational requirements. Some colleges will accept courses taken in the Military and will credit you with semester hours.
- Applicants with military service shall receive up to ten (10) semester hours for each year of honorable service in any active military or reserve military service up to a maximum of three (3) years or thirty (30) semester hours.

### *Additional Requirements*

- Applicant must be a citizen of the United States.
- Must pass the Physical Agility Test
- Sit-Ups (1 minute) - Minimum number needed to pass is 32
- 300 Meter Run - Maximum time is 64 seconds
- Push-Ups (1 minute) - Minimum number needed to pass is 23
- 1.5 Mile Run - Maximum time is 14:15 (min/sec) [OHP 2009b].

### *Continuing education*

Every full-time, certified peace officer must complete a minimum of twenty-five hours mandatory continuing education each calendar year. The training must be CLEET accredited and include a mandatory two hours on mental health issues [State of Oklahoma 2015].

***Reinstatement***

If a CLEET certified peace officer has been inactive for 5 or more years, the officer must complete refresher training as prescribed by CLEET and successfully pass a written examination within one year of employment [State of Oklahoma 2015].

***Certification by reciprocity***

An officer who has been certified in another state or as a federal peace officer by a recognized federal law enforcement agency, may obtain an Oklahoma Peace Officer Certification. The peace officer must meet the legally required minimum standards for an Oklahoma Peace Officer Certification; within the two year period immediately prior to the request, the peace officer must have been employed full time for at least three months; and must attend training and successfully pass a certification examination as specified by CLEET State of Oklahoma [2015]. Although the peace officer can obtain a CLEET certificate, he must still meet minimum qualifications to be eligible for application to the Oklahoma Highway Patrol Academy, pass all phases of testing and successfully complete the academy to become a trooper.

***Reference***

State of Oklahoma [2015]. State of Oklahoma: rules governing the Council on Law Enforcement Education and Training. Oklahoma City: OK: State of Oklahoma, Office of Administrative Rules, [https://www.ok.gov/cleet/documents/2015Rules\\_11Sep2015.pdf](https://www.ok.gov/cleet/documents/2015Rules_11Sep2015.pdf).

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