Responder Safety at Emergency Scenes on Highways

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The safety of firefighters and emergency responders must be the top priority of the Incident Commander (IC) and all personnel at any incident. Maintaining the safety of responders at emergency scenes on highways is a daunting task. Controlling the variables of an emergency incident on a highway is exceptionally challenging. Influencing the awareness and actions of drivers approaching a scene is difficult. But, the challenge must be met; emergency responders are called daily to assist people in need and to mitigate dangerous situations on highways. Sadly, secondary incidents involving injury and death of emergency responders are an all too common occurrence.

Between 1995 and 1999, 17 firefighters were struck and killed by motorists, an 89% increase over the previous five year period.[1] More than 20% of annual firefighter deaths occur on roadways.[2] In 2005, the National Institute for Occupational Safety and Health (NIOSH) reported that 390 workers* were killed in "struck-by-incidents", an increase from 278 in 2004. That year, struck-by-incidents accounted for seven percent of the total number of occupational injuries. Statistics from the National Traffic Incident Management Coalition (NTIMC) reveal that, on average, at least two emergency responders are struck each day in the United States. Between 1995 and 2006 an average

[1] NIOSH

* *"Workers"* include firefighters, law enforcement, emergency medical personnel, tow operators, construction.

[2] NTIMC – Home page

of one law enforcement officer was struck and killed each month by a passing vehicle. In the first three months of 2006, five tow operators were killed at traffic incident scenes. [3] There have been several responder related incidents already in 2008.

- On January 9th a Waterloo, Iowa police officer was injured when he was hit by a car while investigating another accident.[4]
- On January 13th a Peoria, Illinois police officer was injured while working on a motor vehicle accident. The officer was struck by a rubbernecking motorist while helping to clear a two-vehicle accident. This was the second similar incident in a week. The motorist told police that he was busy looking at the crash and didn't even see the officer, who was standing in the roadway. [5]
- On January 29th two South Carolina firefighters were struck by a vehicle while assisting a driver of a disabled vehicle. The lights on their fire apparatus were flashing to warn motorists. The driver apparently drove around two cars that had stopped for the fire truck. It then struck the men and the disabled car. [6]

These statistics and examples are not meant to suggest that personnel and scene safety were disregarded; nothing could be further from the truth. However, every responding agency has its own priorities and agenda. Fire, EMS, law enforcement, and personnel that clear scenes all work toward a goal; problems arise when their collective goals conflict. An example of conflicting goals occurred in Hazelwood, Missouri in 2003 at the scene of a motor vehicle accident. Robertson Fire Protection District Captain David Wilson ordered the driver of a piece of fire apparatus to position the vehicle in a manner so as to protect rescuers working at the scene. A Hazelwood police officer demanded that the driver move the vehicle in order to accommodate passing traffic. The officer felt that the

[3] NTIMC - Traffic Incident Facts
[4] ResponderSafety.com - Waterloo
[5] ResponderSafety.com - Peoria
[6] ResponderSafety.com - South Carolina

fire vehicle was creating a hazard and was not contributing to scene safety. Captain Wilson refused to have the truck moved and was arrested. The Captain was released shortly after the incident. In 2008 Wilson was awarded $17,500 for damages.[7,8] While this may be an interesting story, depending on your point of view, it is a symptom of a problem that includes poor communication, opposing objectives, and lack of incident management and command. To overcome the problem agencies need to work together in a concentrated fashion with safety as the primary goal.

An innovative program has been developed in Ohio. Ohio QuickClear was developed and implemented to focus on several areas: scene protection, traffic management, and efficient clearing of an incident. Its mission statement reads: *"Committed to maintaining the safe and effective flow of traffic during emergencies as to prevent further damage, injury or undue delay of the motoring public."* [9] The purpose of QuickClear is multifaceted. The safety of civilians and responders is important but the program also addresses traffic congestion, time delays, and the associated economic loss to the community and the state. An objective of QuickClear, as stated in the Professional Responders Guide is:

> Thousands of responders and motorists are needlessly killed or injured each year as a result of inefficient incident scene management. Traffic incidents are causing millions of hours of congestion delay annually, which results in billions of dollars wasted. Given their authority to close travel lanes, local public agencies must recognize their part in this process. These best practices were developed to promote safe and efficient incident management in Ohio. This professional responders guide is intended to share best practices with emergency services

[7] Firehouse.com – Jury awards
[8] Youtube.com
[9] Ohio QuickClear Professional Responders Guide p.3

including fire, law enforcement, Emergency Management Agencies (EMA), Emergency Medical Services (EMS) and other first response agencies. [10]

"Incident management" refers to the response, management and clearance of traffic incidents. QuickClear's goals of efficient incident management are:

- Safety for incident responders by limiting their time at a scene
- Reduce the risk of secondary crashes
- Reduce the duration of traffic incidents, without compromising effective investigation by law enforcement agencies
- Manage traffic around incidents to reduce congestion delay, and minimize the amount of traffic flowing past the incident scene
- Minimize delay costs [11]

In order to achieve efficient incident management the QuickClear program has developed and promotes "Best Practices" for all agencies involved in emergency highway incidents. Best practices for fire & EMS, law enforcement, transportation agencies, and towing and recovery personnel are described in detail in the responders guide.

The best practices for fire and EMS include: provide training in the identification of hazardous materials, request traffic control assistance from law enforcement, maintain proper communication through ICS with other responding agencies, clear identification of the Incident Commander, and proper blocking procedures to shield the scene. [12]

The key to the program is agencies working together. "…Communication, cooperation, and coordination are essential to accomplish the ultimate goal of safety."… [13]

[10] Ohio QuickClear Professional Responders Guide p.4
[11] Ohio QuickClear Professional Responders Guide p.5
[12] Ohio QuickClear Professional Responders Guide p.9
[13] Ohio QuickClear Professional Responders Guide p.19

Programs are also being developed on a national scale. The National Traffic Incident Management Coalition (NTIMC) is a group of national organizations dedicated to the safe and efficient management of traffic incidents. Coalition members include International Association of Chiefs of Police, International Association of Fire Chiefs, International Association of Firefighters, International Fire Service Training Association, and the National Fire Protection Association. NTIMC members work together to promote state, regional and local Traffic Incident Management (TIM) programs, TIM standards, best practices, performance measures, and TIM research. [14] One program the NTIMC is currently developing is the National Unified Goal for Traffic Incident Management (NUG). The NUG has three objectives: responder safety; safe, quick clearance; and prompt, reliable incident communications. The coalition proposes to meet their objectives through the implementation of eighteen strategies. The strategies can be found on the internet at http://www.transportation.org/sites/ntimc/docs/NUG%20Unified%20Goal-Nov07.pdf. [15]

The NTIMC also serves the various agencies that are involved in highway emergency incidents by policy development, production of technical publications, awareness and outreach publications, and outreach activities. [16]

Secondary incidents pose a tremendous danger to response personnel, according to the NTIMC the likelihood of a secondary crash increases by 2.8 % for every minute the initial incident continues to be a hazard. Causes include changes in traffic conditions, including the lengthening line of other vehicles, substantial drop in speed, and rubbernecking. Secondary crashes due to congestion resulting from a previous crash are

[14] NTIMC – Home page
[15] National Unified Goal
[16] NTIMC – How Does

estimated to represent 20 percent of all crashes.[17] Effective traffic incident management programs can prevent or reduce secondary crashes by reducing the duration of incidents, thereby increasing the safety to responders.

A program used by the NTIMC to reduce secondary crashes and increase responder safety is the promotion of the enactment, awareness, and enforcement of *Move Over / Slow Down* laws. Move Over / Slow Down laws "require motorists to change lanes to provide an empty travel lane between their vehicle and emergency vehicles along the roadside, or to slow down while approaching—and passing—a traffic incident, if moving to another lane is not possible."[18] The American Automobile Association (AAA), a member of NTIMC, spearheaded a year long public information and legislation campaign in November of 2007 aimed at reducing deaths and injuries among roadside workers, including emergency responders. Forty-one states have laws that require motorists to move over when they see flashing lights on an emergency vehicle on a roadside. The focus of the campaign is to pass "Move Over" laws in states where they do not exist and to include roadside service vehicles in present laws that omit them. [19]

Information on a state's present (if any) move over laws can be accessed at http://www.aaanewsroom.net/Assets/Files/2007124154430.50StateMoveOverLawChart.pdf . The information chart describes the law and provides a hyperlink to the state's web site containing the specific language. Ohio's law requires motorists to vacate the lane closest to a stationary emergency vehicle.[20] The Ohio law presently has no criteria for tow operators.

[17] Benefits p.4
[18] NTIMC – Move Over laws
[19] AAA
[20] Move Over laws

(Please refer to Appendix A for an excerpt of the Move-Over Laws charts.)

There are a tremendous amount of resources available to emergency response agencies whose personnel perform at emergency incidents on highways. Agencies that have policies and procedures can enhance and build upon established programs. Responders that have no clear cut procedures can develop and implement policies, procedures, and guidelines aimed at protecting their personnel. Training and other resources are available through several internet sites dedicated to the safety of emergency responders:

ResponderSafety	http://respondersafety.com/
OhioQuickClear	http://www.dot.state.oh.us/QuickClear/quickclear.asp
NTIMC	http://timcoalition.org/?siteid=41

Presentations on Ohio QuickClear are available to organizations. Jeff Cotner of Bloom Township Fire Department provides information to groups. Jeff prefers to have a mixed audience comprised of fire, EMS, law enforcement, tow operators, and EMA administrators.[21] The idea is to get the information out to everyone involved in highway emergencies.

Having effective policies and procedures in place is extremely beneficial. On March 9, 2008 a police cruiser and a fire truck were damaged when they were struck by another vehicle at the scene of an accident on I-90 in Pennsylvania. The fire apparatus and the cruiser were parked at the scene for traffic control.[22] On July 5, 2007 four Mesquite, Texas firefighters were injured but released within 6 hours of an incident where

[21] Cotner, Jeff
[22] ResponderSafety.com – I 90

their pumper was struck by a jack knifing truck.[23] Had the pumper not been placed where it was the outcome could have been much more serious.

Developing, implementing, and enforcing programs aimed at responder safety is essential for any agency involved in highway incidents. No one agency can act alone; the keys to an effective safety program are communication, coordination, and cooperation.

[23] FirefighterCloseCalls.com

Appendix A
(Excerpt from Move-Over Laws Chart)

"MOVE-OVER-LAWS" CHART
As of 12/3/2007

State	Police/EMS/ Fire	Tow Trucks	Code	Summary
New York				Legislation pending in Assembly – requires drivers to use due care not to collide with stationary emergency vehicles. AS02403 Link: http://assembly.state.ny.us/leg/?bn=A02403
North Carolina			20-157	Requires drivers to reduce speed and vacate lane closest to stationary emergency vehicle. (July 1, 2006). – Identifies emergency vehicles as police, fire, rescue or ambulance. Link: http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_20/GS_20-157.html
North Dakota			39-10-26	Requires drivers to reduce speed and vacate lane closest to stationary emergency vehicle. Link: http://www.legis.nd.gov/cencode/T39C10.pdf
Ohio			4511.21.3	Requires drivers to vacate lane closest to stationary emergency vehicle. Link: http://codes.ohio.gov/orc/4511.213
Oklahoma			47-11-314	Requires drivers to vacate lane closest to stationary emergency vehicle. Link: http://www2.lsb.state.ok.us/os/os%5F47%2D11%2D314.rtf
Oregon			811.147	Requires drivers to vacate lane closest to stationary emergency vehicle. Link: http://www.leg.state.or.us/ors/811.html

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